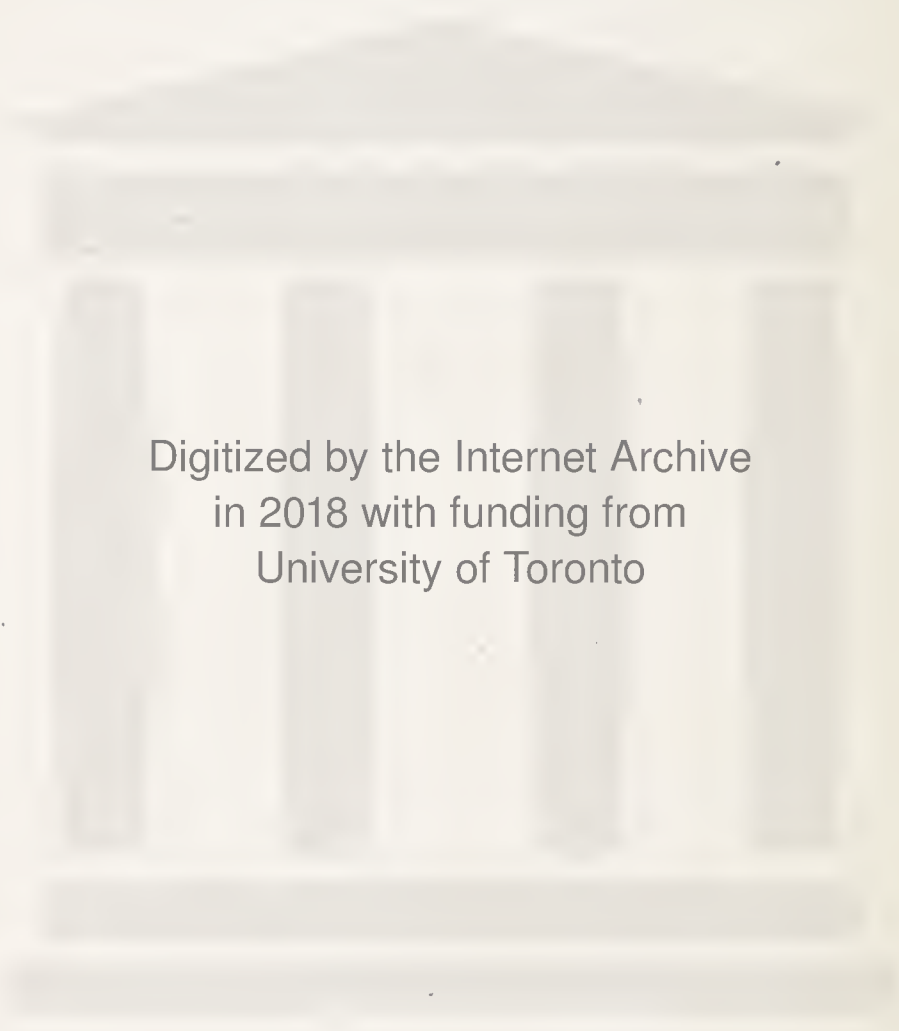


THE
ENTOMOLOGIST'S COMPANION.

Second Edition.

By H. T. STAINTON.

LONDON:
JOHN VAN VOORST, 1, PATERNOSTER ROW.
1854.



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L O N D O N :
PRINTED BY C. ROWORTH AND SONS,
BELL YARD, TEMPLE BAR.

TO
THE SHARER OF MY OCTOBER MORNING RAMBLES
AMONG THE
NEPTICULÆ,
AND
DISCOVERER OF THE LARVA OF
PERITTIA OBSCUREPUNCTELLA,*
This Volume
IS APPROPRIATELY DEDICATED
AS
A TRIBUTE OF ESTEEM AND AFFECTION,
BY
THE AUTHOR.

* The honeysuckle-leaf-miner, mentioned at page 63 and at page 128.

P R E F A C E.

HAVING received from many quarters assurances that the First Edition of this little Volume has been found of considerable service, I hasten to produce a Second Edition in accordance with the arrangement and nomenclature of my Volume of the *Insecta Britannica* now in the press. In many respects the present Volume is more than an amplification and correction of its predecessor. It has been my aim, by the insertion of more readable matter, to render the "Companion" more entertaining, without sacrificing any of its usefulness, and without enhancing the cost.

One main object of this book is to induce Entomologists to observe and to record their observations. In a science so extensive as Entomology, yet relating to objects so minute, the number of observations necessary to enable us to write the Natural History of Insects is enormous. It is not in the power of one man, or of a dozen men, however unremitting their exertions may be, to accomplish a tenth part of what is wanting. We must multiply the number of observers. Every nook and corner must be ransacked by

some observing Entomologist; and the more labourers in the field, the sooner will the harvest be gathered in.

Now, in recording an observation, it is of great importance that the record be correct. Yet all records are liable to error; for instance, A. B. may state that he has bred a moth, C. D., from a larva feeding on a plant, E. F. Now, in the first place, he may be mistaken in the name of the moth; it may not be C. D., but L. M. In the second place, he may be mistaken about the food-plant; it may be some other plant, N. O., quite different from E. F. In the third place, though he thinks that the larva which produced his moth fed upon the plant, it may have been full-fed, and accidentally crawling over the plant on which he found it; yet it might have no connexion with that plant. Hence three distinct errors may arise.

No person, in recording an observation, would think of *dove-tailing* his account of what he saw with something he had read; for that would vitiate his own observation. It would be impossible to say how much of this account applied to what he saw, and how much to what he had read. In the same way it requires extreme caution in recording the habits of an insect, in order to be quite sure that it is continuously the same species that the observer has in view.

In preparing the Synonymic Catalogue for the British Museum, I have necessarily waded through a vast amount

of Entomological Literature, and I have been forcibly struck with the extent to which descriptions have been copied by successive authors. A great inconvenience attends this practice. It is impossible now to ascertain what insects were really intended by these copying writers, because it is quite possible that the insects they had before them might not be identical with those the descriptions of which they copied; whereas if they had themselves described the insects, this would have been easily ascertained by an examination of their descriptions. It is quite lamentable the extent to which any error, however absurd, has been copied; such as that *Tinea vestianella* (a *Coleophora*) feeds on clothes! *Plutella Cruciferarum*, on honeysuckle! &c. At first sight it would appear that these propositions must be true, because so many authors have asserted them; but when we find that each, in copying his predecessor, copied faithfully the very blunders, we perceive the sad cause of so much confusion.

In some few instances I have felt convinced that some, who have preceded me in my synonymic labours, have recognized that the name generally known for a certain insect was not really the oldest, and therefore not that to which the insect was legally entitled; but they have been unwilling to disturb the existing nomenclature, and, from motives of expediency, have connived at that which they felt to be wrong, forgetting that the rightful course they feared to pursue might afterwards be taken by some bolder and more conscientious writer, even though at that later period it might be attended with more inconvenience.

In the pursuit of Scientific Truth there can be but one maxim—

“ Be just, and fear not.”

In the sincere hope that this little Volume will at no distant date, from the progress of the Science (to which so many young and ardent minds are now eagerly contributing), become obsolete and (having served its time) useless, I now commit it to the public.

H. T. STANTON.

MOUNTSFIELD, LEWISHAM,

March 18th, 1854.

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INTRODUCTION.

THE object of this little volume is to supply rudimentary information to the incipient Entomologist, by instructing him when and where to look for insects ; and when seen, how to catch them. For want of distinct instruction on these matters, a young Entomologist frequently wastes a great deal of time, which might otherwise have been employed with great advantage to science.

Of course different orders of insects, having different habits, are to be sought in different ways and at different times. To give full instruction, therefore, in the *when*, *where* and *how* to catch all orders of insects, an accurate acquaintance with the habits of all orders of insects would be necessary. I have, therefore, confined myself in the following pages to an account of the modes of capture, localities frequented and times of appearance of the MICRO-LEPIDOPTERA* inhabiting these islands.

For the assistance of the more advanced student of Entomology I have collated into a tabular form the times of appearance of all our known *TINEINA*, and have then added under each separate month fuller details of the habitats of each species occurring during that month, whether in the states of larva, pupa or imago ; by this means an industrious collector is at once reminded to look for each species at the proper time, and will not, as now too frequently happens, *begin to think of looking* for a species just when its period of appearance is over.

A few hints in conclusion on the method of rearing the larvæ, and of killing, pinning and setting the perfect insects, will not be unacceptable to the Entomological tyro.

* Or, to speak more correctly, of the *Tineina*, but the modes of capture of the *Tortricina* are precisely identical, and the localities frequented are also similar.

HOW TO CATCH MICRO-LEPIDOPTERA.

OF course the modes in which *Micro-Lepidoptera* might be caught are very numerous, but the best mode of capture is that by which the insects suffer least injury, and which takes up least time.

For this purpose, nothing seems to answer better than a ring or bag net of book-muslin, in which the moths are caught in the first place, and afterwards removed, each in a separate pill-box, to the coat pocket. Besides the ordinary ring net for catching moths on the wing, a sweeping net is of great use for brushing them from the herbage, and also for beating the branches of trees and hedges into it, since though a simple ring net *may* be used for both these purposes, its smaller size necessarily diminishes very greatly the number of insects which would be beaten into it, or swept off the herbage by it. I proceed to describe in detail these two kinds of nets, in order that those who like may be enabled to construct them for themselves.

The ring net consists of a stick, a brass ring, and a net; the stick should be about thirty-nine inches long, and bound at the top by a piece of brass; at the top is a small cavity in the wood, into which the ends of the ring fit, and may be made quite firm by adding wedges; the ring is of brass, ten or eleven inches in diameter, and about a quarter of an inch thick; it does not form a complete ring, being as it were cut open and the two ends turned down; these ends are flattened, and fit into the end of the stick; the net is of white book-muslin, with a double border of calico round the opening, through which the ring slides. The length, form and substance of the net are matters of primary importance; the length should be such, that while in a pendant position, and held in the left hand, the right hand should be able to reach to the bottom comfortably; if it is too long it will have to be pulled up in order that the hand may reach the bottom, and this will so distort the shape of the net, that the collector will no longer be able to see the insect situated at the bottom of it; if the net is too short, many insects will be found to fly out of it before there is time to secure them in pill boxes, however much the collector may blow

upon them to keep them from coming up; the net should be as wide at the bottom as at the top, or nearly so, and the corners rounded, as if there is a sharp corner (I have known Entomologists use a net terminating in a point) many insects will secrete themselves therein, and independently of the time occupied in dislodging them, they will be found when so dislodged considerably rubbed by their friction against the net. The substance of the net is required to be tough, and at the same time not coarse or rough, and not with large openings. *Gauze* is not at all adapted for Entomological purposes, as it so easily tears, the first bramble bush frequently making a tremendous gap; *net* is also ill adapted for small moths, as they are no sooner in than out of the net, by creeping through the holes; *lino* is likewise rather too open, and is besides very readily torn, though not so much so as gauze; *book-muslin* has the advantage of not easily tearing, and being fine enough to prevent the smallest moths from creeping through it, and is therefore best adapted for Micro-Lepidopterists. The ring with the net on it may, for convenience of carriage, be placed up the back, that is, between the coat and waistcoat of the collector.

The sweeping net may, in Mr. Douglas's words, be constructed as follows:—

“Find a descendant of Tubal Cain that has ability to work neatly in brass, get him to make a figure of **Y** with brass tube, the trunk two inches and a half long, and five-eighths of an inch diameter, and each arm two inches and a quarter long, and three-eighths of an inch diameter. Into one of the small tubes put a tightly fitting cane, and bend it till it meets the other tube and forms a pear-shaped ring, twenty inches by fourteen inches diameter. For carrying, this ring may be rolled up, so that it will fit into a collector's hat, or better, because firmer when made up, it may be cut into lengths of a foot (more or less), and when wanted for use, they may be fitted together by means of pieces of brass tube slightly curved, and about four inches long. Then get a lady friend to make a bag net of book-muslin, rather *larger* than the ring, thirty inches long, and cut so that it hangs perpendicularly at the handle, tapering from the opposite point of the circumference,

but rounded at bottom, *not going to a point*; round the top must be a band of brown holland, in which the cane can slide *easily*. A handle is made by fitting a walkingstick into the large tube.

“This net is very useful for sweeping grass, the edges of bushes, or anything that will not catch and tear it; it is also large enough to beat into furze bushes or hedges, and its size gives the collector great facility for catching insects on the wing.”

Having provided himself with one of these nets, and a beating stick, and a supply of pill boxes (for small moths $\frac{1}{2}$ drachms are quite large enough, and an ordinary pocket will hold 150 of these easily), the collector is equipped; but how, when he has caught a moth in his net, is he to proceed to get it into the pill box? There are several ways of doing this, but the best is as follows:—holding the net in the left hand, take with the right hand a pill box out of the pocket, and, raising it to the mouth, remove the lid by means of the lips. Then dive down the net with the lidless box, and place it over the moth, which will be sitting, running, or fluttering on the side of the net. The object now is to get the other hand at liberty, in order to put the lid on the box; for this purpose keep pressing the box against the side of the net, and gradually raise the right arm and lower the left hand, till the end of the stick rests on the ground, and the ring is itself supported by the right arm; then taking hold of the pill box from the outside of the net, with the left hand (thus still keeping it pressed against the side of the net), use the right hand to slip the lid suddenly between the box and the net. The insect being thus secured, the box may be removed to the pocket in which the filled boxes are contained. This process is rather complicated to describe, but is very simple in practice. Of course the actual mode of proceeding in boxing an insect from a sweeping net differs slightly from that above described, but the difference is so little, that any beginner may easily put himself in the right method.

Moths that are sitting on palings are easiest caught by putting a lidless box over them, and then very quickly passing the lid under it; moths that are on rough walls, or on the trunks of trees, may sometimes be caught in the same way, but it frequently answers better to start the insects first, and then catch them with the net.

WHERE TO CATCH MICRO-LEPIDOPTERA.

The places of resort of *Micro-Lepidoptera* are trees, hedges, heaths, open fields, &c., and palings. The main thing to be borne in mind is, that of all things they avoid wind. Wherever they are sought for, care must be taken to get as much as possible out of the wind. In searching on trees, the lee side of the trunk should be examined, and the boughs on the same side beaten. In searching among hedges, the best mode of proceeding is to beat the hedge on the sheltered side (whether it be the sunny side or not). On heaths, open fields, &c., advantage should be taken of any undulations in the ground to find the most sheltered spot. Of course in all these places the less wind the better (except, perhaps, for the trunks of trees); and in open fields, tops of mountains, chalk downs and sandy coasts, it cannot be too calm. But with regard to palings (by which I mean the wooden park palings so common in the South of England), the more wind the better, as the insects get blown out of the trees and underwood and take refuge on the lee side of a paling. A gale about Midsummer enables the collector to fill his boxes without much trouble, if he only have a good paling in his neighbourhood, for moths have particular predilections, and will not settle upon every paling.

Many insects may be obtained by smoking their retreats. If a weedy bank or thick bush be well saturated with the smoke of tobacco, the insects concealed therein will come creeping out in a semi-sluggish state, and may be easily caught in pill boxes.

A collector wishing thoroughly to explore the Entomology of his District, had better, for a considerable period, confine his attention to one piece of ground, trying it in every way, and learning to know at once which spots will afford the best shelter, according as the wind may happen to blow from different quarters.

WHEN TO CATCH MICRO-LEPIDOPTERA.

This may be viewed in two ways, viz. at what hour of the day to catch them, and at what time of the year to catch them. The

latter point of view is elaborated in detail in the Calendar of British *Tineina*: here the best hours of capture only are considered.

Many species fly in the early dawn ; but as that time of the day answers the collector best for the purpose of setting out his previous captures (his head being cooler and his hand steadier than later in the day), it is not particularly desirable to squander it in making fresh captures. Some species fly in the middle of the day, during the hottest sunshine ; but the greater number lie quiet during the day, and are often not even to be beaten out ; but a short time before sunset they begin to fly, and will generally be found freely on the wing till quite dusk. Some species are later in their appearance, and do not fly till after dark ; these may frequently be obtained by means of a strong light placed at an open window, by which they are attracted and brought within our reach.

TO COLLECT THE LARVÆ OF MICRO-LEPIDOPTERA.

For this purpose carry a small tin canister of convenient size for the pocket, and place in it all the larvæ collected, with their proper food. It is of importance to keep their food fresh as long as possible, especially in the case of those larvæ which mine in the interior of leaves, and nothing answers so well as a tight fitting tin canister for keeping the food fresh. The larvæ of *Micro-Lepidoptera* feed in a very great variety of ways, and on almost every form of vegetable substance, as will be seen hereafter.

In the following table the letters L, P and I signify that the insect is to be met with in the larva, pupa and imago states in the respective months.

With regard to those species where neither L nor P occurs, the transformations of the insects are unknown, or, if they have been observed, they have not been recorded (or, in some few cases, though recorded, the month of appearance has not been mentioned). I hope that any Entomologist, whether already known to me or not, will, on discovering the transformations of any of these species, communicate to me (or, if he prefers, to the Editor of the "Zoolo-

gist,"†) the interesting fact, in order that it may not again pass into oblivion. The number of the commonest species with the transformations of which we are entirely unacquainted is still very great, as may be easily seen from this table.

Several very interesting papers by Mr. Douglas, with special reference to the transformations of the *TINEINA*, have lately appeared in the "Transactions of the Entomological Society of London;" these papers are illustrated with coloured plates, showing the larva, pupa and imago, highly magnified, and showing also the mode of feeding of the larva and the distortion of the plant caused by its presence. All who have sought for larvæ know by experience how difficult it is to find one from a *description* of what to look for, but as soon as they have *seen the thing itself*, they get on much faster. Next to seeing the thing itself, a good figure will naturally be of most use, hence the great value of these plates; the genera already illustrated in this way are *GELECHIA*, *COLEOPHORA*, *GRACILARIA*, *LITHOCOLLETIS*, *BEDELLIA* and *ELACHISTA*. A continuance of these plates, on a more extensive scale, is promised in "The Natural History of the *Tineina*," which it is now proposed to publish in a series of octavo volumes, each containing the full natural history of twenty-four allied species.

Any one who shall *first* discover and communicate to me the transformations of twenty of the species indicated in the annexed table by an *, will be entitled to receive, *gratis*, a copy of the *entire series* of the above-named work.

† The "Zoologist," (edited by E. Newman, 9, Devonshire Street, Bishopsgate); a very useful monthly magazine, with interesting notices in all branches of Zoology, and, in a science of such rapid progress as Entomology, indispensable to the beginner, as the latest books on the subject are very far behind the present state of the science.

TABLE OF APPEARANCE

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
EXAPATE—												
gelatella .....	..	..	..	..	..	L	L	..	..	..	I	I
DASYSTOMA—												
Salicella .....	..	..	..	I	..	..	L	L	L	..	..	..
CHIMABACCHE—												
Phryganella .....	..	..	..	..	..	L	L	..	..	I	I	..
Fagella .....	..	..	I	I	..	..	..	..	L	L	..	..
TALÆPORA—												
pubicornis* .....	..	..	..	..	..	I	..	..	..	..	..	..
pseudo-bombycella .	..	..	..	L	L, I	I	..	..	..	..	..	..
SOLENOBIA—												
inconspicuella	L	L	L	I	..	..	..	..	..	..	L	L
Douglasii* .....	..	..	..	I	..	..	..	..	..	..	..	..
DIPLODOMA—												
marginepunctella ..	..	..	..	..	..	I	I	..	..	..	..	..
XYSMATODOMA—												
melanella .....	..	..	..	L	L	I	..	..	..	..	..	..
OCHSENHEIMERIA—												
Birdella .....	..	..	..	L	L	..	I	I	..	..	..	..
Bisontella* .....	..	..	..	..	..	..	I	I	..	..	..	..
Vacculella* .....	..	..	..	..	..	..	I	..	..	..	..	..
EUPLOCAMUS—												
Boleti	L	L	L	..	..	..	I	..	..	L	L	L
TINEA—												
imella* .....	..	..	..	..	..	I	..	I	..	..	..	..
ferruginella* .....	..	..	..	..	..	I	I	..	..	I	..	..
rusticella* .....	..	..	..	..	I	..	..	..	..	..	..	..
monachella* .....	..	..	..	..	I	..	..	I	..	..	..	..
fulvimitrella* .....	..	..	..	..	..	I	..	..	..	..	..	..
tapetzella .....	..	..	..	L	L	I	I	..	..	..	..	..
arcella* .....	..	..	..	..	..	I	I	I	..	..	..	..
picarella* .....	..	..	..	..	I	..	..	..	..	..	..	..
arcuatella .....	..	..	..	..	..	I	I	..	..	L	..	..
corticella .....	..	..	..	..	I	L	L	I	..	..	..	..
parasitella	L	L	L	P	I	I	..	..	..	L	L	L
Granella .....	..	..	..	..	..	I	..	..	L	L	..	..
cloacella .....	..	..	..	..	I	I	..	I	..	..	..	..
ruricolella .....	..	..	..	..	I	I	..	I	..	..	..	..
Cochylidella* .....	..	..	..	..	..	I	..	..	..	..	..	..
albipunctella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Caprimulgella* .....	..	..	..	..	..	..	I	..	..	..	..	..
misella* .....	..	..	..	..	..	I	..	I	..	..	..	..
fuscipunctella .....	..	..	..	L	..	I	..	..	I	..	..	..
pellionella .....	..	I	I	L, I	L, I	L, I	L, I	I	I	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
TINEA—												
pallescentella* .....	..	..	..	..	..	..	..	..	I	..	..	..
flavescentella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Lapella* .....	..	..	..	..	I	I	..	I	..	..	..	..
biselliella .....	..	L	L	L, I	L, I	L, I	L, I	L, I	L, I	I	I	..
simplicella* .....	..	..	..	..	..	..	I	..	..	..	..	..
nigripunctella* .....	..	..	..	..	I	..	..	I	..	..	..	..
semifulvella* .....	..	..	..	..	..	I	..	..	..	..	..	..
bistrigella* .....	..	..	..	..	..	I	..	..	..	..	..	..
subammanella* .....	..	..	..	..	..	..	I	..	..	..	..	..
argentimaculella* ..	..	..	..	..	..	..	I	..	..	..	..	..
ochraceella* .....	..	..	..	..	..	..	I	I	..	..	..	..
LAMPRONIA—												
quadripunctella .....	..	..	..	..	L, I	I	..	..	..	..	..	..
Luzella* .....	..	..	..	..	..	I	..	..	..	..	..	..
prælatella	L	L	L	L	L, P	I	..	..	L	L	L	L
Rubiella .....	..	..	..	L	L	I	..	..	..	..	..	..
LAMPROSETIA—												
Verhuellevella .....	..	..	..	..	I	I	..	..	..	..	..	..
INCURVARIA—												
muscalella	P	P	P	P	I	..	..	..	L	L	L	L
pectinea	P	P	P	I	I, L	L	L	L	L	L	L	L
tenuicornis* .....	..	..	..	..	..	..	I	..	..	..	..	..
Oehlmanniella .....	..	..	L	..	..	I	..	..	..	..	..	..
capitella .....	..	..	..	L	I	I	..	..	..	..	..	..
MICROPTERYX—												
Calthella* .....	..	..	..	..	I	I	..	..	..	..	..	..
Aruncella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Seppella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Mansuetella* .....	..	..	..	..	I	I	..	..	..	..	..	..
Allionella* .....	..	..	..	..	I	I	..	..	..	..	..	..
Tunbergella* .....	..	..	..	..	I	..	..	..	..	..	..	..
purpurella* .....	..	..	..	I	..	..	..	..	..	..	..	..
Salopiella* .....	..	..	..	I	..	..	..	..	..	..	..	..
semipurpurella* .....	..	..	..	I	..	..	..	..	..	..	..	..
unimaculella* .....	..	..	..	I	..	..	..	..	..	..	..	..
Sparmannella* .....	..	..	..	I	I	..	..	..	..	..	..	..
subpurpurella* .....	..	..	..	..	I	..	..	..	..	..	..	..
NEMOPHORA—												
Swammerdammella* ..	..	..	..	..	I	I	..	..	..	..	..	..
Schwarziella* .....	..	..	..	..	I	I	..	..	..	..	..	..
Carteri* .....	..	..	..	..	..	..	..	..	..	..	..	..
pilella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Metaxella* .....	..	..	..	..	I	I	..	..	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
ADELA—												
Fibulella*	I	I	..	..	..	..	..	..
rufimitrella*	I	..	..	..	..	..	..	..
Sulzella*	I	..	..	..	..	..	..
Degeerella	L	L	..	I	..	..	..	..	..	..
viridella*	I	I	..	..	..	..	..	..
cuprella*	I	I	..	..	..	..	..	..	..
NEMOTOIS—												
Scabiosellus*	I	..	..	..	..	..	..
cupriacellus*	I	..	..	..	..	..	..
fasciellus*	I	I	..	..	..	..	..
minimellus*	I	..	..	..	..	..
SWAMMERDAMIA—												
apicella*	I	I	..	..	..	..	..	..	..
cæsiella	I	..	I	L	..	..	..
griseo-capitella	I	..	..	L	..	..	..
lutarea	I	I	..	..	..	..
Pyrella	I	I	L	L	I	L	..	..	..
SCYTHROPIA—												
Cratægella	L	L, I	..	..	..	..	..
HYPONOMEUTA—												
vigintipunctatus	I	I	L	L, I	I	L	L	..	..
plumbellus	L	I	I	..	..	..	..
irreorellus	L	I	..	..	..	..	..
Padellus	L	L	I	I	..	..	..	..
Evonymellus	L	I	I	..	..	..	..
Padi	L	I	I	..	..	..	..
ANESYCHIA—												
pusiella	L	I	I	..	..	..	..	..
bipunctella	I	..	L	I	..	L	..	..
funerella*	I	..	..	..	..	..	..
decemguttella	I	I	..	..	L	L	..	..
CHALYBE—												
pyrausta*	I	..	..	..	..	..	..	..
PRAYS—												
Curtisellus	L	L	I	I	..	..	..	..	..
EIDOPHASIA—												
Messingiella*	I	..	..	..	..	..	..
PLUTELLA—												
Cruciferarum	I	L	L	I	L	..	..	..
porrectella	L	I	L	I	..	..	..	..	..
annulatella*	I	I	..	..	..
Dalella*	I	I	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
CEROSTOMA—												
sequella	L	L	I	I	..	..	..	..
vittella	L	..	I	I	..	..	..	..
radiatella	L	..	..	I	I	I	..	..
costella	I	I	I	..	..	..
sylvella	L	..	I	I	..	..	..
alpella	I	..	..	..	..
lucella	I	..	..	..	..	..
horridella	I	..	..	..	..	..
scabrella	L	..	I	I	..	..	..	..
asperella	L	..	I	I	I	..	..
nemorella	L	I	I	..	..	..	..	..
Xylostella	L	..	I	I	..	..	..	..
THERISTIS—												
caudella	I	I	L	L	I	I	..	..	..
ORTHOTÆLIA—												
Sparganella	L	L	I	I	..	..	..	..
SEMIOSCOPI—												
Avellanella*	I	I	..	..	..	..	..	..	..	..
Steinkellneriana	I	..	..	..	L	L	..	..	..
ENICOSTOMA—												
lobella	I	..	L	L	..	..	..
PHIBALOCERA—												
Quercana	L	L	I	I	..	..	..	..
EXÆRETIA—												
Allisella*	I	I	..	..	..	..
DEPRESSARIA—												
costosa	L	I	I	..	..	..	..
liturella	I	..	L	I	I	..	..	..	..
pallorella*	I	..	..	..
Umbellana	I	..	..	..	I	I	I	..	..
assimilella	L	L	..	I	I	..	..	..	..	..
nanatella*	I	..	..	..	..
atomella	L	L	..	I	I	..	..	..
arenella	I	I	..	L	L	I	..	..	..	..
propinquella	L	L	I	I	..	..
subpropinquella	L	..	I	I	..	..	..
Alstrœmeriana	I	..	..	L	I	..	..	..	..
Ciniflonella*
purpurea*	I	..	..	..	I	I	..	..	..
Capreolella*	I	..	..	..
Hypericella	L	L	I	..	..	..	..	..
conterminella	L	L	I	I	..	..	..	..
Angelicella	L	I	..	..	..	..	..

TABLE OF APPEARANCE

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
DEPRESSARIA—												
Carduella*	I	I	..	..	..	..
ocellana	I	I	..	..	L	I	..	..	..	..
Yeatiana*	I	..	..	..
applana	I	I	..	L	I	I	I	I	..	..
ciliella	L	I	I	..	..	..
granulosella*	I	..	..	..
rotundella	L	..	I	..	..	..
depressella	L	L	..	I	..	..
Pimpinellæ	L	L, I	I	..	..	..
albipunctella*	I	I	..	..	..	..
emeritella	L	I	..	..	..	..
pulcherrimella*	I	..	..	..	..	..
Douglasella*	I	I	..	..	..	..
Weirella	L	L, I	I	..	..	..	..	..
Chærophylli	L	I	I	..	..	..
ultimella*	I	..	..	..
nervosa	L	..	I	..	..	..
badiella*	I	..	..	..	..
Pastinacella*	I	..	..	..
Heracliana	I	..	L	L	I	I	..	..	..
PSORICOPTERA—												
gibbosella	L	I	..	..	..	..	..
GELECHIA—												
cinerella*	I	I	..	..	..	..	..
rufescens	L	L	L	L	L	I	I	..	L	L	L	L
inornatella*	I	..	..	..	..	..	..
gerronella*	I	..	..	..	..	..
vilella*	I	..	..	I	..	..	..
basalis	I	..	..	..
Malvella	I	I	..	L	L	..	..
Populella	L	L, I	I	I	..	..	..	..
nigra*	I	I	..	..	..	..	..
temerella	L	I	..	..	..	..	..
lentiginosella	L	L	I	I	..	..	..	..
velocella*	I	I	..	..	I	..	..	..	..
fumatella*
ericetella*	I	I	..	..	..	..	..	..
mulinella	L	L	..	I	I	..	..	..	..
divisella*	I	..	..	..	..	..	..
palustrella*	I	..	..	..	..	..
sororculella	L	L	I	..	..	..	..	..
cuneatella*	I	..	..	..
peliella*	I	I	..	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
GELECHIA—												
alacella*	I	..	..	..	..	..
longicornis*	I	I	..	..	..	..	..	..
diffinis	L	I	I	..	I	..	..	..	..
terrella*	I	I	..	..	..	..	..
desertella*	I	I	..	..	..	..	..
politella*	I	..	..	..	..	..	..
acuminatella	I	..	L	I	L	..	..	..
artemisiella	L	I	I	..	..	..	..	..
senectella*	I	..	..	..	..	..
mundella*	I	I	..	..	..	..	..	..
similis*	I	..	..	..	..	..
affinis	L	L	..	..	..	..	I	..	..	..	..	L
boreella*	I	..	..	..	..	..
Galbanella*	I	..	..	..	..	..
basaltinella*	I	I	..	..	..	..	..
domestica*	I	I	..	..	..	..
rhombella	L	L	I	..	..	..	..	..
proximella	I	I	..	..	L	..	..	..
notatella	I	..	..	..	L	..	..	..
humeralis*	I	..	..	I	I	I	..	..	..
vulgella	L	I	I	..	..	..	..	..
luculella*	I	..	..	..	..	..	..
scriptella	I	I	..	..	L	..	..	..
fugitivella	L	I	I	..	..	..	..	..
Æthiops*	I	..	..	..	..	..	..
solutella*
distinctella*	I	I	..	..	..	..
celerella*	I	..	..	..
costella	I	..	L	L, I	I	..	..	..
maculea	L	L	I	..	..	..	..	..
tricolorella	L	L	L	..	I	..	..	..	..	..
fraternella	L	L	..	I	..	..	..	..	..
maculiferella*	I	..	..	..	..	..
junctella*	I	..	..	..	..
vicinella*	I	I	..	..	..
Hübneri*	I	I	..	..	..	..
marmorea*	I	I	I	I	..	..	..
instabilella	I	I, L	I	..	..	..
atriplicella	L	L	L, I	I	..	..	..	..
obsoletella	L	L	L	L, I	..	..	..	..
littorella*	I	..	..	..	..	..	..	..
sequax	L	L	I	I	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
GELECHIA—												
aleella*	I	I	..	..	..	..	..	..
leucatella	L	I	I	..	..	..	..	..
albiceps*	I	..	..	..	..
nanella	L	P	I	..	..	..	..	..
Mouffetella	L	I	I	..	..	..	..	..
dodecella	L	I	I	..	..	..	..	..
triparella	I	I	..	L	L	..	..	..
tenebrella*	I	..	..	..	..	..	..
tenebrosella*	I	I	..	..	..	..	..
ligulella	L	I	I	..	..	..	..	..
vorticella	L	I	..	..	..	..	..	..
tæniolella*	I	..	..	..	..	..
Sircomella*	I	..	..	..	..	..	..
immaculatella*	I	..	..	..	..
nigritella*
Coronillella	L	I	I	..	..	..	..	..
Anthyllidella	L	I	..	L	I	..	..	..	..
atrella*	I	..	..	..	..	..
bifractella	L	L	..	..	..	..	I	I	..	..	L	L
suffusella*	I	..	..	..	..	..	..
lucidella*	I	..	..	..	..	..
lutulentella*	I	..	..	..	..	..
cerealella	L	L	L	L	I	..	..	..	..	..	L	L
nigricostella*	I	..	..	..	..	..	..
gemmella	L	I	I	..	..	..	..
næviferella	I	L	..	I	..	L	..	..
Hermannella	I	L	..	I	..	L	..	..
pictella*	I	..	..	I	..	..	..	..
Brizella	I	..	..	I	L	L	..	..
ericinella	L	I	..	..	..	..	..
paupella*	I	..	..	..	..	..
inopella	L	..	..	..	..	I	I	..	..	..	L	L
subocellea	L	L	L	..	..	..	I	L	L	L	L	L
PARASIA—												
Lappella	L	L	L	L	..	..	I	I	..	L	L	L
Metzneriella	I	I	..	..	..	..
Carlinella	L	L	..	..	..	..	I	I	..	L	L	L
neuropterella	I	I	..	..	..	..
CLEODORA—												
Cytisella*	I	..	..	..	..	..
CHELARIA—												
Hübnerella*	I	I	..	..

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ANARSIA—												
Spartella .....	..	..	..	..	L	L	I	..	..	..	..	..
Genistæ .....	..	..	..	..	..	L	I	..	..	..	..	..
YPSOLOPHUS—												
fasciellus .....	..	..	..	..	I	..	..	..	L	..	..	..
marginellus .....	..	..	..	..	..	L	I	I	..	..	..	..
APLOTA—												
palpella* .....	..	..	..	..	..	..	..	I	..	..	..	..
NOTHRIS—												
Verbascella .....	..	..	..	L	L	P, I	I	L, P	L, P	I	..	..
Durdhamella* .....	..	..	..	..	..	..	I	..	..	..	..	..
SOPHRONIA—												
parenthesella* .....	..	..	..	..	..	I	I	..	..	..	..	..
humerella* .....	..	..	..	..	..	I	I	..	..	..	..	..
PLEUROTA—												
bicostella* .....	..	..	..	..	I	I	I	..	..	..	..	..
HARPELLA—												
Geoffrella* .....	..	..	..	..	I	I	..	..	..	..	..	..
HYPERCALLIA—												
Christiernana* .....	..	..	..	..	..	I	I	..	..	..	..	..
DASYCERA—												
sulphurella	L	L	L	I	I	..	..	..	..	L	L	L
Oliviella* .....	..	..	..	..	..	I	I	I	..	..	..	..
ÆCOPHORA—												
minutella .....	..	..	..	..	I	I	..	..	..	..	..	..
flavimaculella .....	..	..	..	..	..	I	I	L	L	..	..	..
tripuncta* .....	..	..	..	..	I	I	..	..	..	..	..	..
similella .....	..	..	..	..	I	I	..	..	..	L	L	..
augustella* .....	..	..	..	..	..	I	..	..	..	..	..	..
Woodiella* .....	..	..	..	..	..	I	..	..	..	..	..	..
grandis* .....	..	..	..	..	..	I	..	..	..	..	..	..
formosella* .....	..	..	..	..	..	..	I	..	..	..	..	..
lunaris* .....	..	..	..	..	..	..	I	I	..	..	..	..
Lambdella* .....	..	..	..	..	..	I	I	..	..	..	..	..
subaquilella* .....	..	..	..	..	I	I	..	..	..	..	..	..
Panzerella* .....	..	..	..	..	..	I	I	..	..	..	..	..
tinctella* .....	..	..	..	..	I	I	..	..	..	..	..	..
unitella .....	..	..	L	L	L	..	..	I	..	..	..	..
flavifrontella* .....	..	..	..	..	..	I	..	..	..	..	..	..
fuscescens* .....	..	..	..	..	..	..	I	I	..	..	..	..
pseudo-spretella	L	L	L	..	..	..	I	I	..	..	..	..
ÆGOCONIA—												
quadripuncta* .....	..	..	..	..	..	..	I	I	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ENDROSIS—												
fenestrella	L, I	L, I	L, I	L, I	L, I	L, I	L, I	L, I	L, I	L, I	L, I	L, I
BUTALIS—												
grandipennis* . . . . .	..	..	..	..	I	I	..	..	..	..	..	..
fusco-ænea* . . . . .	..	..	..	..	..	I	..	..	..	..	..	..
senescens* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
fusco-cuprea* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
Cicadella* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
variella* . . . . .	..	..	..	..	..	I	..	..	..	..	..	..
Chenopodiella . . . . .	..	..	..	L	L	L, I	L, I	L, I	I	I	..	..
torquatella* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
incongruella* . . . . .	..	..	I	I	..	..	..	..	..	..	..	..
PANCALIA—												
Latreillella* . . . . .	..	..	..	..	..	I	..	..	..	..	..	..
Leuwenhœkella* ..	..	..	..	..	I	I	..	..	..	..	..	..
ACROLEPIA—												
perlepidella* . . . . .	..	..	..	..	I	..	..	..	..	..	..	..
granitella . . . . .	..	..	..	..	..	L	I	I	I	..	..	..
pygmæana . . . . .	..	..	..	I	I	..	L	L	L	..	..	..
Betulella* . . . . .	..	..	..	..	..	..	..	I	..	..	..	..
RÜSLERSTAMMIA—												
Erxlebelli . . . . .	..	..	..	..	..	L, I	I	I	..	..	..	..
GLYPHIPTERYX—												
fuscoviridella* . . . .	..	..	..	..	I	I	..	..	..	..	..	..
Thrasonella* . . . . .	..	..	..	..	..	I	I	..	..	..	..	..
Haworthana* . . . . .	..	..	..	..	I	..	I	..	..	..	..	..
equitella . . . . .	..	..	..	L	L	I	I	..	..	..	..	..
oculatella* . . . . .	..	..	..	..	..	I	..	..	..	..	..	..
Fischeriella* . . . . .	..	..	..	..	I	I	I	..	..	..	..	..
ÆCHIMIA—												
dentella* . . . . .	..	..	..	..	I	I	..	..	..	..	..	..
PERITTIA—												
obscurepunctella* ..	..	..	..	..	I	..	..	..	..	..	..	..
TINAGMA—												
sericiellum* . . . . .	..	..	..	..	I	..	..	..	..	..	..	..
Stanneellum* . . . . .	..	..	..	..	I	..	..	..	..	..	..	..
resplendellum* . . . .	..	..	..	..	..	I	..	..	..	..	..	..
DOUGLASIA—												
Ocnerostomella*	I	I
ARGYRESTHIA—												
ephippella	L	I	I
nitidella	L	I	I
purpurascens*	I

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ARGYRESTHIA—												
semitestacella	I	I
spiniella	I	I
albistria	L	I	I
conjugella	I	I	I
semifusca*	I	..	..	..	..
mendica	L, I	I	..	..	..	..	..	..
glaucinella*	I	I	..	..	..	..	..
retinella	I	I	..	..	..	..	..
abdominalis	I	I	..	..	..	..	..
dilectella	I	..	..	..	..	..
Andereggiella	I	I	..	..	..	..
curvella	I	I	..	..	..	..	..
Sorbiella	L	I	I	..	..	..	..	..
pygmæella	L	I	I	..	..	..	..	..
Goedartella	L	L	P	I	I	..	..	..	..	..
literella*	I	..	..	..	..	..	..
Brockeella	L	L	P	I	I	..	..	..	..	..
arceuthina	I	..	..	..	..	..	..	..
præcocella	I	..	..	..	..	..	..	..
aurulentella	I	I	..	..	..	..
decimella*	I	..	..	..	..	..	..
CEDESTIS—												
farinatella	I	I	..	..	..	..	..
Gysselinella	I	I	..	..	..	..	..
OCNEROSTOMA—												
piniariella*	I	..	I	I	..	..	..	..	..
ZELLERIA—												
hepariella	L	L	I	I	I	..	..
insignipennella	I	..	..	..	I	I	..	..	..
fasciapennella*	I	I	..	..
GRACILARIA—												
Swederella	I	I	L	I	L	L	..	..
stigmatella	I	I	..	..	L	L	I	..	..
stramineella*	I	..	..	..
hemidactylella	I	..	..	..
falconipennella	I	..	..	..	I	I	I	..	..
semifascia*	I	I	..	..
populetorum*	I	..	..	..	..	I	..	..	..
elongella	L	I	..	L	I	..	..	..
tringipennella	L	P, I	I, L	L	I	..	..	..	..
Syringella	I	L	I	..	L	..	..	..
omissella	I	L	L, I	..	L	L	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
GRACILARIA—												
phasianipennella	L	I	I	..	..
auroguttella	P	P	P	P	I	L	I	I	L	L	P	P
quadruplella	I	..	..	..	..	..	..
Ononidis	L	L	I	I	I	..	..	..	..
imperialella*	I	..	..	..	..	..	..	..
CORISCIMUM—												
Brongniardellum	I	L	I	..	L, I	I	..	..	..
cuculipennellum	I	I	..	..	L	I	I	..	..
sulphurellum*	I	..	..	..	..	I	I	..	..
ORNIX—												
Avellanella	I	..	L	I	L	L	..	..
Devoniella	I	..	..	..	..	..	..	..
Anglicella	I	I	..	L	I	L	..	..	..
Betulæ	I	..	L	I	L	L	..	..
scutulatella*	I	..	..	..	..	..	..
torquillella	I	..	L	I	L	..	..	..
Scoticella	I	..	L	L	..	..	..
Loganella*	I	I	..	..	..	..	..
guttea	I	I	L	L	..	..	..	..
COLEOPHORA—												
Fabriciella*	I	I	..	..	..	..	..
deauratella*	I	..	..	..	..	..
alcyonipennella	L	L	..	I	..	..	..	..	..
Frischella*	I	..	..	..	..	..
paripennella	P	P	I	..	..	L	L	..	..
Wockeella	L	I	..	..	..	..	..
ochrea	I	I	..	..	..	..
binotapennella*	I	..	..	..	..
Lixella	L	I	I	..	..	..	..	..
vibicella	L	I	..	..	..	..	..
conspicuellæ	L	L	I	..	..	..	..	..
pyrrhulipennella	L	I	I	..	..	..	..	..
albicosta*	I	I	..	..	..	..	..	..
Vulnerariæ*	I	I	..	..	..	..	..
anatipennella	L	I	I	..	..	..	..	..
palliatella	L	I	I	..	..	..	..	..
currucipennella	L	I	I	..	..	..	..	..
niveicostella*	I	I	..	..	..	..	..
discordella	L	L	I	I	..	..	L	..	..
saturatella*	I	..	..	..	..	..
Onosmella	L	L	L	I	..	..	..	..	..
therinella*	I	I	..	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
COLEOPHORA—												
troglodytella . . . . .	..	..	..	..	L	I	I	..	..	..	..	..
lineolea . . . . .	..	..	L	L	L	I	I	..	..	..	..	..
murinipennella* . . .	..	..	..	..	I	I	..	..	..	..	..	..
cæspititella	L	L	L	L	L	I	..	..	L	L	L	L
annulatella . . . . .	..	..	..	..	..	..	I	I	L	L	..	..
argentula . . . . .	..	..	..	..	..	..	I	..	L	L	..	..
hemerobiella . . . . .	..	..	..	..	L	..	1	..	..	..	..	..
juncicolella* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
Laricella . . . . .	..	..	..	L	..	I	..	..	L	L	..	..
albitarsella	L	L	L	..	..	I	1	..	..	..	L	L
nigricella . . . . .	..	..	..	..	L	I	I	..	..	..	..	..
fuscedinella . . . . .	..	..	..	..	L	L	I	..	..	..	..	..
orbitella* . . . . .	..	..	..	..	..	I	I	..	..	..	..	..
gryhipennella . . . .	..	..	..	L	L	I	..	..	L	L	..	..
viminetella . . . . .	..	..	..	L	L	1	I	..	L	L	..	..
olivaceella* . . . . .	..	..	..	..	I	..	..	..	..	..	..	..
solitariella . . . . .	..	..	..	..	L	L	I	..	..	..	L	..
lutipennella . . . . .	..	..	..	..	L	I	I	..	..	..	..	..
badiipennella . . . . .	..	..	..	..	L	I	I	..	..	..	..	..
BEDELLIA—												
somnulentella . . . . .	..	..	..	..	..	..	..	L, I	L	I	..	..
STRATHMOPODA—												
pedella* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
COSMOPTERYX—												
Drurella . . . . .	..	..	..	..	..	..	I	..	L	..	..	..
Lienigiella* . . . . .	..	..	..	..	..	I	I	..	..	..	..	..
BATRACHEDRA—												
præangusta . . . . .	..	..	..	..	L	..	I	..	..	..	..	..
pinicolella* . . . . .	..	..	..	..	..	I	1	..	..	..	..	..
OINOPHILA—												
V-flava . . . . .	..	..	..	..	..	..	I	I	..	..	..	..
CHAULIODUS—												
insecurellus* . . . . .	..	..	..	..	..	..	I	I	..	..	..	..
Illigerellus . . . . .	..	..	..	..	L	..	I	..	..	..	..	..
Chærophyllellus . . . .	..	..	..	..	..	L	I	1, L	L	I	..	..
LAVERNA—												
propinquella* . . . . .	..	..	..	..	..	..	I	..	..	..	..	..
lacteella* . . . . .	..	..	..	..	..	1	I	..	..	..	..	..
Staintoni . . . . .	..	..	L	L	I	I	L	I	..	..	..	..
Stephensi* . . . . .	..	..	..	..	..	..	..	I	..	..	..	..
Epilobiella . . . . .	..	..	..	..	I	L	L	I	..	..	..	..
ochraceella . . . . .	..	..	..	..	L	P, I	I	..	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
LAVERNA—												
Phragmitella*	1	..	..	..	..	..
decorella*	I	I	..	..	..	I	I	..	..
subbistrigella*	I	..	..	..	..	..	..
atra	I	..	..	..	..	..	..
Rhamniella*	I	..	..	..	..	..
CHRYSOCLISTA—												
Linneella	L	L	I	I	..	..	..	..
bimaculella*	I	..	..	..	..	..	..
Schrankella	L	..	I	..	..	..	..	..
flavicaput*	I	..	..	..	..	..	..
HELIODINES—												
Roesella	L	I	..	..	..	..	..
ANYBIA—												
langiella	L	L, I	I	..	..	..	..
ASYCHNA—												
modestella*	I	..	..	..	..	..	..	..
fuscociliella*	I	I	..	..	..	..	..	..
æratella*	I	I	..	..	..	..	..
terminella*	I	I	..	..	..	..	..
CHRYSOCORYS—												
festaliella*	I	I	..	..	..	..	..	..
ELACHISTA—												
Pfeifferella*	I	..	..	..	..	..	..	..
Treitschkiella*	I	..	..	..	..	..	..	..
Gleichenella*	I	I	..	..	..	..	..
Brunnichella*	I	..	..	I	..	..	..	..
magnificella*	I	I	..	..	..	..
apicipunctella*	I	..	..	..	..	..	..
albifrontella.	L	I	..	..	..	..	..	..
Holdenella*
atricomella	L, I	I	..	..	..	..	..	..
luticomella	L	I	I	..	..	..	..	..
Kilmunella*	I	I	..	..	..	..	..
alpinella*	I	..	..	..	..
cinereopunctella	I	I	..	..	..	..	..	..
trapeziella*	I	..	..	..	..	..	..
nigrella	L	I	..	L	I	..	..	..	..
subnigrella	L	L	I	L	I	..	..	..	..
occultella*	I	..	..	..	..	..	..	..
consortella*	I	I	..	..	..	..	..	..	..	..
pulchella	I	I	..	..	..	..	..	..
Bedellella	I	..	..	I	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ELACHISTA—												
obscura*	I	..	..	I	..	..	..	..
Albinella*	I	..	..	..	..	..	..
zonariella	L	..	..	I	..	..	..	..
gangabella*	I	..	..	..	..	..	..
obliquella*
abruptella*
Megerella	L	L	I	..	..	I	..	..	..	..
adscitella*	I	..	..	..	..	..	..
cerusella	I	..	..	L, I	..	..	..	..
Rhynchosporella*	I	I	..	..	..	..	..
Eleochariella*	I	..	..	..	..	..
biatomella*	I	I	I	..	..	..	..	..
serricornis*
triatomea*	I	I	..	..	..	..	..
triseriatella*	I	..	..	..	..	..	..
collitella*	I	..	..	..	..	..
pollinariella*	I	I	..	..	..	..	..
rufocinerea	P	I	..	..	..	..	..	..	..
ochreella*	I	..	..	..	..	..	..
cygnipennella	L	L	I	..	..	..	..	..	..
TISCHERIA—												
complanella	I	..	..	L	L	..	..
marginella	I	..	L	I	..	L	L	L
LITHOCOLLETIS—												
Roboris.	P	P	P	..	I	..	L	I	..	L	P	P
hortella	P	P	P	..	I	..	L	I	..	L	P	P
Amyotella	P	P	P	..	I	..	L	I	..	L	P	P
Lantanella	L	L	L	..	I	..	L	I	..	L	L	L
triguttella*	I	..	..	..	..	..	..	..
quinqueguttella*	I	..	I	..	..	..	..	..
nigrescentella*	I	..	..	..	..	..	..	..
irradiella*	I	..	..	..	..	..
lautella	P	P	P	..	I	..	L	I	..	L	P	P
pomifoliella	I	..	L	I	L	L	..	..
Coryli	I	..	L	I	L	L	..	..
spinicolella	I	..	L	I	L	L	..	..
Faginella	I	..	L	I	L	L	..	..
salicolella	I	..	L	I	L	L	..	..
viminetorum	I	..	..	..	L	L	..	..
carpinicolella	P	P	P	..	I	..	L	I	L	L	P	P
ulmifoliella	I	..	L	I	L	L	..	..
Spinolella	I	..	L	I	L	L	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
LITHOCOLLETIS—												
quercifoliella	P	P	P	..	I	..	L	I	..	L	P	P
Messaniella	L	L	L	L	I	..	L	I	..	L	I	..
corylifoliella	I	..	L	I	L	L	..	..
Caledoniella*	I	I	..	..	..	..	..	..
viminiella	I	..	L	I	L	L	..	..
Scopariella*	I	I	..	..	..	..	..
ulicicolella*	I	I	..	..	..	..	..
alnifoliella	I	..	L	I	L	L	P	..
Heegeriella	P	P	P	..	I	..	L	I	..	L	P	P
Cramerella	P	P	P	..	I	..	L	I	..	L	P	P
tenella	P	P	P	..	I	..	L	I	L	L	P	P
sylvella	I	..	L	I	L	L	..	..
emberizæpennella	I	..	L	I	L	L	..	..
Frölichella	I	..	..	..	L	L	..	..
Dunningiella*	I	..	..	I	..	..	..	..
Nicellii	I	..	L	I	L	L	..	..
Stettinensis	I	..	L	I	L	L	P	..
Klemannella	I	..	L	I	L	L	..	..
Schreberella	I	..	L	I	L	L	..	..
tristrigella	I	..	L	I	L	L	..	..
trifasciella	L	I	..	L	I	L	L	I	..
Scabiosella	L	L	L	L	I	..	L	I	..	..	..	..
comparella*	I	..	..	I	..	..	..	..
LYONETIA—												
Clerckella	I	..	I	L	I	L	L	..	..
padifoliella*	I	I	..	..
PHYLLOCNISTIS—												
suffusella	I	..	L	I	L	I	I	..	..
saligna	I	..	L	I	L	L, I	I	..	..
CEMIOSTOMA—												
spartifoliella	L	L	P	I	I	..	..	..	..	..
Laburnella	I	..	L	I	L	L	..	..
scitella	I	I	L	L	..	..	..
OPOSTEGA—												
salaciella*	I	I	..	..	..	..	..
auritella*	I	..	..	..	..	..	..
crepusculella*	I	I	..	..	..	..	..
BUCCULATRIX—												
aurimaculella*	I	..	..	I	..	..	..	..
cidarella*	I	..	..	..	..	..	..
Ulmella	I	I	..	I	L	..	..	..
vetustella	I	..	..	..	..

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
BUCCULATRIX—												
Cratægi	I	I	L	L	..	..	..	..
Demaryella*	I	..	..	..	..	..	..
maritima*	I	..	..	..	..	..
Boyerella	I	I	L	..	..	..	..
Frangutella	I	I	L	L	..	..	..
Hippocastanella.....	I	L	..	I, L	..	..	..	..
cristatella*	I	..	I	..	..	..	..
NEPTICULA —												
atricapitella	I	..	L	I	L	L	..	..
ruficapitella	I	..	L	I	L	L	..	..
anomalella	I	..	L	I	..	L	..	..
pygmæella	I	..	L	I	..	L	..	..
Oxyacanthella	I	..	L	I	..	L	..	..
viscerella	I	..	..	..	..	L	..	..
Catharticella	I	..	L	I	..	L	..	..
Septembrella	I	..	..	..	L	L	L	..
intimella*	I	..	..	..	..	..	..
Headleyella*	I	..	..	..	..
subbimaculella	I	..	..	..	L	L	..
argyropeza*	I	..	..	..	..	..	..	..
apicella*	I	I	..	..	..	..	..	..
trimaculella*	I	..	..	I	..	..	..	..
quinquella*	I	I	..	..	..	..	..
sericopeza*	I	..	..	..	..	..	..
floslactella	I	..	L	I	..	L	..	..
Salicis	I	..	L	I	..	L	..	..
microtheriella.....	I	..	L	I	..	L	..	..
ignobilella	I	..	L	I	..	L	..	..
argentipedella	I	I	..	..	..	..	..	..
Acetosæ	I	..	L	I	..	L	..	..
plagicolella.....	I	..	L	I	L	L	..	..
Tityrella	I	..	L	I	..	L	..	..
Matella	I	..	L	I	..	L	..	..
angulifasciella	I	..	..	..	L?	L?	..
gratiosella	I	..	..	..	L	L	..	..
marginicolella	I	..	L	I	L	L	..	..
aurella.....	L	L	L, I	L, I	I	L	L, I	I	L	L	L	L
TRIFURCULA —												
atrifrontella*	I	..	..	..	..
squamatella*	I	..	..	..	..
immundella*	I	I	..	..	..	..
pulverosella*	I	I	..	..	..	..	..	..

IN the following CALENDAR of TINEINA appearing in the *Imago* state, the insects are enumerated under the respective months in which they may generally be expected; but of course, the precise period of their appearance is liable, in a climate so variable as ours, to be considerably affected by the warmth or coldness of the season. The letters b. m. and e. are used to denote the beginning, middle and end of the month respectively. The letters w. and m. w., prefixed to the names of certain species, signify that they are *wanted*, or *much wanted* in collections. When the food of the larva is not known, I have generally noticed the plant frequented by the perfect insect with a? In some few cases the predilection of the perfect insect for a particular plant is very marked, whether the larva feeds on it or not.

Appearing in the IMAGO state.

JANUARY.

Endrosis fenestrella In houses.

FEBRUARY.

Tinea pellionella }
Endrosis fenestrella .. } In houses.

MARCH.

Chimabacche Fagella, e. On trunks of trees, palings, &c.
Tinea pellionella In houses.
w. *Semioscopis Avellanella*.. On trunks of trees, palings, &c., among birches.
Depressaria arenella .. } Flying along hedges at dusk, and sitting on
ocellana .. } them after dark; also at sugar, and on
applana .. } sallow blossoms.
Endrosis fenestrella In houses.
w. *Butalis incongruella*, e. On moors, in the north of England.
M.W. *Elachista consortella* ... Among the short grass on Arthur's Seat.
Nepticula aurella..... On palings, among brambles.

APRIL.

Dasystoma Salicella.... Among salallows, flying by day.
Chimabacche Fagella . }
w. *Solenobia inconspicua* } On the trunks of trees, palings, &c.
M.W. *Douglasii* .. }

Appearing in the Imago state—APRIL.

- Tinea pellionella* } In houses.
biselliella }
- Incurvaria pectinea*, e... Among birches, flying by day.
- Micropteryx*
purpurella }
- M.W. *Salopiciella* } Among birches, by sweeping the twigs, also
semipurpurella } by beating; calm sunny afternoons are
unimaculella } best.
- W. *Sparmannella*, e. .. }
- W. *Adela cuprella*, e. Among willows, in calm sunshiny weather.
- Swammerdamia*
apicella, e. } Flying along hedges.
Pyrella, e. }
- M.W. *Hyponomeuta*
vigintipunctatus, e. .. Among *Sedum telephium*.
- W. *Theristis caudella*..... On palings, &c., among *Euonymus*.
- W. *Semioscopis Avellanella*.. On trunks of trees, palings, &c., among birches.
- Steinkellneriana* On palings, &c. and by beating sloe bushes.
- Depressaria liturella* .. Hedges at dusk, and after dark.
- Umbellana* Among *Ulex Europæus*.
- arenella* }
- Alstrœmeriana* } Flying along hedges at dusk, and sitting on
purpurea } them after dark; also at sugar, and on
ocellana } sallow blossoms.
applana }
- Heracliana* }
- Gelechia velocella*, e. .. On sandy heaths, flies at mid-day.
- W. *humeralis* On trunks of trees; New Forest.
- Dasycera sulphurella* .. Hedges and gardens.
- Endrosis fenestrella* In houses.
- W. *Butalis incongruella*.... On moors, in the North of England.
- Acrolepia pygmæana* .. In hedges, among *Solanum dulcamara*, flying on sunny afternoons.
- Ocnerostoma piniariella*.. Among fir trees; Dartford Heath fence.
- M.W. *Zelleria insignipennella*.. On the Dartford Heath fence.
- Gracilaria stigmatella* .. Among willows.
- M.W. *falconipennella* Among alders?
- M.W. *populetorum* Among poplars.
- Coriscium*
Brongniardellum Among oaks.
cuculipennellum Among privet.
sulphurellum In the New Forest, among heather and oaks?
- Ornix Anglicella* In hedges.
- W. *Laverna decorella*..... Flying along hedges, and by beating ivy.
- M.W. *Elachista consortella* .. Among the short grass on Arthur's Seat.
- Lyonetia Clerckella* On palings, and by beating fir trees.

Appearing in the Imago state—APRIL.

- w. *Phyllocnistis suffusella*...Among poplars } by beating ivy.
saligna...Among willows }
Nepticula aurella.....On palings, among brambles.

MAY.*Talæporia*

pseudobombycella, e...On palings, &c.

Tinca rusticellaIn houses, outhouses, &c.

- w. *monachella*In the Cambridgeshire fens.
 M.W. *picarella*.....Among maple ?
corticellaIn Epping Forest, among hornbeam.
parasitella }
cloacella, m. .. } In old hedges, among decayed wood.
uricolcella, e... }
pellionellaIn houses.
LapellaAmong hedges.
biselliellaIn houses.
 w. *nigripunctella*....In houses, outhouses, &c.

Lampronia

quadripunctella, e. ..Among roses.

M.W. *Lamprosetia*

VerhuellevellaNear Bristol. J. A. H.

Incurvaria muscella ..Hedges, &c. } flying by day.
pectineaAmong birches }

Incurvaria capitella, e...Among currant bushes.

Micropteryx

CalthellaIn the flowers of *Caltha*, *Ranunculus*, &c. and
among *Cariccs*.

- w. *Mansuetella*, e.....On *Mercurialis perennis*, and other low flowers.
Allionella, e.Among honeysuckle and oak.
Tunbergella, m.Among beeches.
 w. *Sparmannella*, b.Among birches.
subpurpurellaAmong oaks.

Nemophora

Swammerdammella, e. } Among oaks ?
Schwarziella, e. }

- w. *Metaxella*, e.Among willows ?

Adela Fibulella, e.At mid-day, in the flowers of *Veronica Chamædrys*.

rufimetrella, e. ..At mid-day, on the flowers of *Cardamine pratensis*.

viridella, m.Among oaks, flying like gnats.

- w. *cuprella*, b.Among blooming willows, on sunny after-
noons.

Swammerdamia

apicella..... } Flying along hedges.
Pyrella }

*Appearing in the Imago state--MAY.*M.W. *Hyponomeuta**vigintipunctatus*, b. .. Among *Sedum telephium*.*Ancyschia*M.W. *bipunctella* Among *Echium vulgare*.W. *decemguttella*, e. Among *Lithospermum officinale*.M.W. *Chalybe pyrausta* In Sutherlandshire.*Plutella Cruciferarum* .. Among cruciferous plants.*porrectella* In gardens, among *Hesperis matronalis*.W. *Theristis caudella* On palings, &c., among *Euonymus*.*Gelechia**velocella*, b. On sandy heaths, flies at mid-day.*ericetella*, m. On heaths, everywhere.*longicornis*, e. On heaths, in the North of England.*diffinis*, e. On dry sandy banks, among *Rumex acetosella*.*acuminatella* Among thistles.W. *mundella*, m. On sand hills on the coast.*proximella* Among birches.*notatella*, e. Among salallows.*scriptella*, m. Among maple.*costella* Among *Solanum dulcamara*.M.W. *litorella* On sandy coasts, Isle of Wight.W. *alcella*, e. On trunks of oaks (West Wickham).*triparella*, m. Among oaks.*Anthyllidella* Among *Anthyllis*, clover, &c.W. *cerealella* In granaries.*næviferella*, m. }
Hermannella, m. .. } Among *Chenopodium*.W. *pictella* On sandy coasts, and on Barnes Common.M.W. *Brizella* Among *Statice Armeria*.M.W. *Ypsolophus fasciellus* ... Among sloe-bushes.*Pleurota bicostella*, e. .. On heaths.*Harpella Geoffrella*, m. . In hedges and woods, among oaks ?*Dasycera sulphurella*, b. In hedges and gardens.*Œcophora minutella* In houses and out-houses.*tripuncta*, e. ... Among brambles ?M.W. *similella*, e. .. On the trunks of fir trees, in the North.W. *subaquilella*, e. On heaths in the North.*tinctella* By beating oaks, West Wickham.*Endrosis fenestrella* In houses.*Butalis grandipennis* .. Amongst furze-bushes.*Pancalia**Leuwenhœckella* In grassy places, among flowers.M.W. *Acrolepia perlepidella* .. At Darenth Wood.*pygmæana*, b. . In hedges among *Solanum dulcamara*, flying
on sunny afternoons.*Glyphipteryx**fuscoviridella*, m. In grassy places, among flowers.W. *Haworthana* On heaths in the North of England.

Appearing in the Imago state—MAY.

- Glyphipteryx*
Fischeriella, m. On flowers generally.
- w. *Æchmia dentella* In hedges, on chalk or limestone.
- w. *Perittia obscurepunctella* Among sloe-bushes?
- Tinagma sericiellum* }
Stannecellum } Among oaks, flying by day
- Argyresthia*
conjugella, e. Among mountain-ash.
mendica, e. Among sloe-bushes.
arceuthina, m. }
w. *præcocella* } Among juniper-bushes.
- Gracilaria*
Swederella Among oaks.
stigmatella, b. Among willows.
tringipennella, m. ... Among *Plantago lanceolata*.
Syringella Among lilacs.
omissella Among *Artemisia vulgaris*.
auroguttella Among *Hypericum*.
M.W. *imperialcella* "Beat from a hedge, Glanville's Wootton,
May 25th, 1840."
- w. *Coriscium*
cuculipennellum Among privet.
- Ornix Avellanella* Among nut-bushes.
- M.W. *Devoniella* Among birch? and honeysuckle? between
Dawlish and Teignmouth.
- Anglicella* In hedges.
- M.W. *Betulæ* Among birches.
- w. *torquillella* In hedges, among sloe.
guttea, e. Among apple-trees.
- Coleophora*
albicosta, e. Among furze-bushes.
murinipennella, e. .. In grassy places, among flowers.
- M.W. *olivaceella*
- Laverna Staintoni*, e. .. Among *Helianthemum vulgare*.
Epilobiella Among *Epilobium hirsutum*.
- w. *decorella* Among ivy? flying along hedges.
- Asychna modestella* Among oaks? and sitting on the flowers of
Stellaria holostea?
- M.W. *fuscociliella* .. On Durdham Downs, near Bristol.
- Chrysocorys festaliella* .. Among brambles.
- Elachista*
Pfeifferella In hedges.
- M.W. *Treitschkiella* In hedges.
- w. *Brunnichella*, e. In the hilly field at Headley Lane, by
sweeping.
- atricomella*, m. In hedges.
cincropunctella, e. .. On the chalk downs.
nigrella In hedges.
- M.W. *occultella* In a moist place, in West Wickham Wood.

*Appearing in the Imago state—MAY.**Elachista*

- W. *pulchella* Among grass.
Bedellella Among the short grass on the chalk downs.
obscurella Among grass.
Megerella In hedges, over grassy banks.
cernusella, m. Among *Arundo phragmites*.
W. *biatomella*, m. On Durdham Downs, near Bristol.
rufocinerea Among grass, flying before dusk.
Tischeria marginea Among brambles.
- Lithocolletis*
- M.W. *Roboris* }
M.W. *hortella*, e. } Among oaks.
M.W. *Amyotella*, e. }
- W. *Lantanella* Among *Viburnum lantana*.
M.W. *triguttella*, m. In hedges, at Sanderstead.
M.W. *quinqueguttella* Among willows, in Lancashire.
M.W. *nigrescentella* At Morpeth.
lantella Among oaks.
pomifoliella Among hawthorn.
Coryli Among nut bushes.
spinicolella Among sloe bushes.
Faginella Among beech trees.
salicicolella Among willows.
viminetorum Among osiers.
Carpinicolella Among hornbeam.
ulmifoliella Among birches.
Spinolella Among willows, in the North and West.
quercifoliella Among oaks.
Messaniella Among evergreen and common oaks.
corylifoliella Among hawthorn.
- W. *Caledoniella*, e. Among oaks? honeysuckle? in the North.
viminiella Among willows in the West.
alnifoliella Among alders.
Heegeriella }
Cramerella } Among oaks.
- W. *tenella* Among hornbeam.
sylvella Among maple.
W. *emberizæpennella* Among honeysuckle.
Frölichella Among alders.
- W. *Dunningiella* Among oaks? and nut-bushes?
M.W. *Nicellii* Among nut-bushes.
M.W. *Stettinensis* }
M.W. *Klemannella* } Among alders.
Schreberella }
tristrigella } Among elms.
trifusciella Among honeysuckle.
- W. *Scabiosella* Among *Scabiosa columbaria*.
W. *comparella* Among white poplars.
Cenostoma Laburnella, m. Among laburnums.

Appearing in the Imago state—MAY.

- *Bucculatrix*
- W. *aurimaculella*, m. Among *Carices* ?
Ulmella Among oaks.
Cratægi, m. Among hawthorn.
- M.W. *Hippocastanella*, e. Among limes, horse-chesnuts, &c.
Nepticula atricapitella } On the trunks of oaks or on palings near
ruficapitella } oaks.
anomalella On palings near roses.
pygmæella Along hawthorn hedges, flying at sunrise.
- W. *Oxyacanthella* On palings near hawthorn.
- W. *viscerella* On palings near elms.
- Catharticella* Among *Rhamnus catharticus*.
- W. *Septembrella* Among *Hypericum*, by sweeping.
- W. *argyropeza* } On palings near poplars, and on the trunks
W. *apicella* } of poplars.
- M.W. *trimaculella* }
floslactella Among nut-bushes and hornbeam.
- W. *Salicis* On palings near willows.
- microthericella* On palings near nut-bushes or hornbeams.
- M.W. *ignobilella* Among hawthorn.
- W. *argentipedella* Among birches.
- M.W. *Acetosæ* Among sorrel, by sweeping.
- W. *plagicolella* On palings near sloe-bushes.
- W. *Tityrella* On palings near beeches, or on trunks of beeches.
- W. *Malella* On palings near apple-trees.
- W. *gratiosella* Among hawthorn, flying round the twigs during the day.
- W. *marginicolella* On palings near elms.
- aurella* Among brambles.
- W. *Trifurcula pulverosella* Among wild-apple trees.

JUNE.

- Talæporia*
- M.W. *pubicornis*, m. In a copse near Grassington, Yorkshire.
- pseudo-bombycella* On palings, trunks of trees, &c.
- W. *Diplodoma*
- marginepunctella* "Hedges near Pembury." J. J. W.
- Xysmatodoma*
- mclanella*, b. On palings.
- W. *Tinea imella* Old hedges.
- ferruginella* Old hedges and coalpits.
- fulvimitrella* On trunks of trees.
- tapetzella* In houses and carriages.
- arcella* Old hedges.
- M.W. *arcuatella* On trunks of trees, Black Forest.
- parasitella* On trunks of trees.
- Granella* In granaries.

Appearing in the Imago state—JUNE.

- Tinea cloacella* } In old hedges, among decayed wood.
ruricolella }
- M.W. *Cochylidella* At Sanderstead.
albipunctella "Hedges, Hurstperpoint, Sussex." J. J. W.
misella In houses and old hedges.
fuscipunctella .. }
pellionella } In houses.
M.W. *flavescentella* .. }
- Lapella* In old hedges.
biselliella In houses.
W. *semifulvella* In old hedges and on palings.
bistrigella In bushy places, in woods.
- Lampronia*
quadripunctella Among roses.
W. *Luzella*, b. In bushy places, in woods.
prælatella, b. Among wild strawberry plants and *Geum urbanum* in woods.
Rubiella Among raspberry-bushes.
M.W. *Lamprosetia Verhuellevella* Near Bristol. J. A. W.
Incurvaria Oehlmanniella In bushy places.
capitella Among currant bushes.
- Micropteryx*
Calthella, b. On the flowers of *Caltha*, *Ranunculus*, &c. and on *Carices*.
W. *Aruncella*, b. } In grassy places, among flowers.
Seppella, b. }
- W. *Mansuetella*, b. On *Mercurialis perennis* and other low plants.
Allionella, b. Among oaks and honeysuckle, in the North.
- Nemophora*
Swammerdammella, b. Among oaks ?
Schwarziella, b. Among oaks ?
W. *pilella*. In Scotland, and the New Forest.
W. *Metaxella* Among willows.
Adela Fibulella, b. On the flowers of *Veronica Chamædrys*.
Sulzella In chalky places.
Degeerella In woods.
viridella, b. Among oaks.
W. *Nemotois Scabiosellus* .. On the flowers of Scabious.
- M.W. *cupriacellus* }
M.W. *fasciellus* .. } In grassy places, among flowers.
- Swammerdamia*
cæsiella, b. In hedges.
griseo-capitella, b. Among birches, in Scotland.
M.W. *Anesychia pusiella*, e. .. Among *Lithospermum* and *Pulmonaria*.
W. *funerella* In the Cambridgeshire Fens, on *Symphytum officinale* ?
W. *decemguttella* On *Lithospermum officinale*.
Prays Curtisellus, e. Among ash trees.

Appearing in the Imago state—JUNE.

- w. *Eidophasia*
 Messingiella, m. Moist places in woods, among oaks?
 Cerostoma nemorella, e. . Among honeysuckle, near Huddersfield.
 Enicostoma lobella In hedges, among sloe bushes.
 Depressaria
 assimilella, m. Among broom.
 w. *Weirella*, e. Among *Chærophyllum sylvestre*.
 Gelechia cinerella, m. .. Among bushy places in woods.
 rufescens In hedges over grassy banks.
 w. *inornatella* In the Cambridgeshire Fens.
 w. *vilella* On the coast.
 Malvella, e. ... Among hollyhocks.
 Populella, e. ... On the trunks of poplars.
 nigra, e. On the trunks of aspens.
 ericetella On heaths.
 M.W. *divisella*, e. In the Cambridgeshire Fens.
 w. *pellicella*, e. Among heather, brambles, &c. West Wick-
 ham.
 longicornis, b. . On heaths in the North.
 diffinis, b. On dry sandy banks among *Rumex aceto-*
 sella.
 terrella, m. ... Among grass.
 desertella, m. .. On sandy coasts.
 w. *politella*, m. ... Among heather, in Scotland and Cumber-
 land.
 Artemisiella, m. In dry sandy places.
 w. *mundella*, b. ... On sandy coasts, Lancashire and Cheshire.
 basaltinella, e. . From old thatch, Addington.
 proximella, b. ... Among birches.
 vulgella, m. ... Among hawthorn.
 luculella, b. ... On the trunks of oaks.
 scriptella Among maple.
 fugitivella, e. .. Among maple and elm; on palings.
 w. *Æthiops* On moors in the North, sitting on the bare
 places.
 marmorea In dry sandy places on the coast.
 w. *aleella*, b. On the trunks of oaks, West Wickham.
 leucatella, e. .. Among apple and hawthorn.
 Mouffetella, e. . Among honeysuckle.
 dodeccella Among fir trees.
 triparella Among oaks.
 tenebrella On dry sandy banks.
 w. *tenebrosella* ... In dry places (among brambles?)
 ligulella Among *Lotus corniculatus*.
 M.W. *vorticella* Among *Genista tinctoria*.
 M.W. *Sircomella* On the Durdham Downs, near Bristol.
 M.W. *Coronillella* In the hilly field at Headley Lane, by
 sweeping.

Appearing in the Imago state—JUNE.

- M.W. *Gelechia suffusella* In the Cambridgeshire Fens.
M.W. *nigricostella* In the Cambridgeshire Fens.
M.W. *inopella*, e. Among *Inula dysenterica*, at Folkestone.
M.W. *Nothris Verbascella*, e. . . On *Verbascum pulverulentum*, near Norwich.
Sophronia
W. *parenthesella*, e. Among furze or broom ? in sandy and chalky places.
M.W. *humerella*, e. In dry sandy places.
Pleurota bicostella On heaths.
Harpella Geoffrella In hedges and woods, among oaks ?
Hypercallia
M.W. *Christierna*, e. In sandpits and chalky places.
Dasycera Olivella, e. . . Among oaks ?
Æcophora
minutella In houses and outhouses.
M.W. *flavimaculella*, m. Among *Angelica sylvestris*.
tripuncta, b. Among brambles.
W. *similella*, b. On the trunks of fir trees.
augustella On the trunks of orchard trees.
M.W. *Woodiella* On moors in the North.
M.W. *grandis* In Bewdley Forest and in Wales, on trunks of trees.
M.W. *Lambdella*, m. Among furze bushes ? in sandy places.
W. *subaquile*, b. On heaths in the North.
W. *Panzarella*, m. In bushy places, Lewes.
tinctella, b. Among oaks ? by beating.
flavifrontella Among roses.
Endrosis fenestrella In houses.
Butalis grandipennis, b. . . Among furze bushes.
W. *fusco-ænea* In grassy places, among flowers.
M.W. *variella*, m. In sandpits.
M.W. *Chenopodiella* . . . Among *Chenopodium* and *Atriplex*.
Pancalia
M.W. *Latreillella*, b. } In grassy places, among flowers.
Leuwenhoekella . . . }
Röslerstammia
M.W. *Erxlebella*, e. On heaths.
Glyphipteryx
fuseoviridella In grassy places, among flowers.
Thrasonella Among rushes.
equitella, e. Flying by day, over the flowers of *Sedum acre*.
M.W. *oculatella* Among *Eupatorium Cannabinum*.
Fischeriella On flowers generally.
W. *Æchmia dentella*, b. . . . In hedges, on chalk or limestone.
Tinagma
M.W. *resplendellum*, e. Among oaks.

*Appearing in the Imago state—JUNE.**Douglasia**Oenerostomella*, e. . . . Among *Echium vulgare*.*Argyresthia**ephippella*, m. In hedges.*nitidella*, m. In hawthorn hedges.*albistria*, m. In hedges, among sloe-bushes.*conjugella* Among mountain-ash.*mendica* Among sloe-bushes.M.W. *glaucinella*, m. In hedges, on palings, &c.*retinella*, m. Among birches.*abdominalis*, e. Among junipers.*curvella*, m. Among orchard-trees.*Sorbiella*, e. Among mountain-ash.*pygmæella*, m. Among willows.*Goedartella*, m. Among birches and alders.M.W. *literella*, m. At Darenth Wood.*Broekeella*, m. Among birches.M.W. *decimella* "On a paling at Camberwell." J. J. W.*Cedestis**farinatella*, m.M.W. *Gysselinella*, m. } Among fir trees.*Oenerostoma**piniariella*, m. }*Gracilaria**Swedcrella*, b. Among oaks.*elongella*, b. Among alders and birches.*tringipennella*, b. Among *Plantago lanceolata*.M.W. *quadruplella*, m. At Ripley.W. *Ononidis*, m. Among *Ononis spinosa*, *Genista tinetoria*?*Coriscium**Brougniardellum*, e. Among oaks.W. *Ornix scutulatella* On the Dartford Heath fence.*Seoticella*, b. Among mountain-ash.M.W. *Loganella* Among nut bushes? in Scotland, and in the
Lake district.*guttea* Among apple trees.*Colcophora**Fabriciella* Among clover?*paripennella* In hedges, and on palings.W. *Lixella*, m. On chalk downs, among *Holcus mollis*.W. *pyrrhulipennella*, e. Among heather.*albicosta*, b. Among furze bushes.M.W. *Vuhierariæ*, m. In sandy places.*anatipennella*, m.W. *palliatella*, m. } Among sloe, oak, willow, &c.M.W. *currueipennella*, m. Among oaks.W. *niveicostella*, m. On heaths and in chalky places.*discordella*, m. Among *Lotus corniculatus*.

*Appearing in the Imago state—JUNE.**Coleophora*

- M.W. *therinella*, c. In grassy places.
 W. *troglydytella*, e. Among *Inula dysenterica* and *Eupatoria Canababinum*.
lineolea, m. Among *Ballota nigra* and *Stachys sylvatica*.
murinipennella, b. . . . In grassy places, among flowers.
cæspitiella Among rushes.
Laricella Among larches.
 W. *albitarsella* Among ground-ivy (*Glechoma hederacea*).
nigricella, m. Among hawthorn.
 M.W. *orbitella* In bushy places, among alders?
gryphipennella, b. . . . Among roses.
 W. *viminetella*, m. Among willows.
lutipennella, e. Among oaks.
 W. *badiipennella*, m. Among ash trees and elms.

Cosmopteryx

- M.W. *Lienigiella*, m. In the Cambridgeshire fens.

M.W. *Batrachedra*

- pinicolella*, e. Among fir-trees.
 W. *Laverna lacteella* Among willows?
Staintoni, b. .. Among *Helianthemum vulgare*.
 W. *ochraceella*, e. Among *Epilobium hirsutum*.
 M.W. *subbistrigella* .. Among willows?
atra Among hawthorn and apple.

Chrysoclista

- M.W. *bimaculella*, m. Among willows? at Black Park.
flavicaput, b. Among hawthorn.
 M.W. *Asychna fuscociliella* .. On Durdham Downs, near Bristol.
 W. *æratella*, e. On flowers near corn fields; on sand.
 M.W. *terminella*, e. .. Among alders?

Chrysocorys festaliella .. Among bramble.*Elachista*

- Gleichenella*, e. In grass, on chalk and sand.
 W. *apicipunctella*, b. In mosses and mountain bogs.
albifrontella Among *Aira cæspitosa*.
 W. *atricomella*, b. Among *Dactylis glomerata*.
luticomella, m. "Among *Dactylis glomerata*." R. F. L.
Kilmunella, m. In mosses and mountain bogs.
cinereopunctella, b. .. Among long grass in chalky places.
 M.W. *trapeziella*, m. From mixed hedges, West Wickham.
subnigrella, b. Among *Bromus erectus*, on the chalk.
pulchella, b. Among grass.
 M.W. *Albinella* In hedges.
 M.W. *gangabella* In chalky and sandy places, Headley Lane and Dartford Heath.
 W. *adscitella* Near Chesterfield.
 W. *Rhynchosporiella*, m. Among cotton grass? in boggy places.
 W. *biatomella* On Durdham Downs, near Bristol, and on sandy coasts.

Appearing in the Imago state—JUNE.*Elachista*

- w. *triatomea*, e. In chalky places, by sweeping grass.
 M.W. *triseriatella* On Durdham Downs, near Bristol.
 pollinariella On chalky downs, by sweeping grass.
 w. *ochreclla*, e. In the Cambridge Fens and in the North of England.
 cygnipennella In dry places, among *Dactylis glomerata*.

Tischeria

- complanella*, b. Among oaks.
 w. *Lithocolletis*
 Caledoniella, b. Among oaks? and honeysuckle?
 w. *Scopariella*, e. Among broom.
 w. *ulicicolella*, e. Among furze bushes.

Lyonetia Clerckella Among apple trees, &c.

Cemiostoma

- spartifoliella*, m. Among broom.
 scitella, e. Among hawthorn, apple and pear.

Opostega

- w. *salaciella*, e. Among grass, on dry banks.
 M.W. *auritella*, e. In the Cambridgeshire Fens.
 M.W. *crepusculella*, e. In boggy places.

Bucculatrix

- M.W. *cidarella*, b. Among alders.
 Ulnella, b. Among oaks.
 Cratægi, b. Among hawthorn.
 M.W. *Demaryella*, b. Among nut-bushes.
 w. *Boyerella*, b. Among elms.
 Frangutella, e. Among buckthorn.
 M.W. *cristatella*, b. Among grass in chalky places, by sweeping.

Nepticula

- w. *intimella* Among willows.
 subbimaculella Among oaks.
 w. *apicella* On the trunks of poplars and on palings near poplars.
 M.W. *quinquella* On the trunks of oaks and on palings near oaks.
 M.W. *sericopeza* On the Dartford Heath fence.
 w. *argentipedella* Among birches.
 w. *angulifasciella* Among roses?
 w. *Trifurcula pulverosella*.. Among wild-apple trees?

JULY.

w. *Diplodoma*

marginepunctella, b. ... "Hedges near Pembury." J. J. W.

Ochsenheimeria

- Birdella* In moist meadows, flying from 12 to 2 P. M.
 w. *Bisontella*..... Among fern (Dartford Heath).
 M.W. *Vacculella* In houses?
 w. *Euplocamus Bolcti*. On the trunks of trees, near fungi.

Appearing in the Imago state—JULY.

- Tinea ferruginella* In old hedges and in coal pits.
tapetzella, b. In houses and carriages.
arcella, e. In old hedges.
W. *arcuatella* On the trunks of trees, Rannoch.
M.W. *Caprimulgella*, b. .. On a paling, near Hackney.
pellionella } In houses.
biselliella }
W. *simplicella* In the hilly field at Headley Lane, and near Deal.
M.W. *subammanella*, m. . In mixed underwood, Torwood.
M.W. *argentimaculella*.. Dartford Heath, and near Hastings.
W. *ochraceella* In ants' nests.
M.W. *Incurvaria tenuicornis* .. Near Lewes.
M.W. *Nemotois fasciellus*, b. .. In flowery places, on sand.
W. *minimellus*, b. .. In moist meadows, Scotland, and in dry chalky places in the south.
W. *Swammerdamia*
lutarea, e. }
Scythropia } Among hawthorn hedges.
Cratægella, m. }
Hyponomeuta
M.W. *vigintipunctatus*, e. .. Among *Sedum Telephium*.
plumbellus, m. }
W. *irreorellus*, m. } Among spindle.
Padellus, m. Among hawthorn, apple, &c.
Evonymellus, m. Among spindle.
Padi, e. Among bird-cherry (*Prunus Padus*).
M.W. *Anescyhia pusiclla*, b. .. Among *Lithospermum* and *Pulmonaria*.
Prays Curtisellus, b. ... Among ash trees.
Plutella porrectella Among *Hesperis matronalis*.
Cerostoma
sequella Among maple and elms.
vittella Among elms and beeches.
costella, m. Among oaks and beeches.
W. *lucella* In heathy places, on sand.
W. *horridella* }
scabrella } Among apple trees.
nemorella, b. }
Xylostella } Among honeysuckle.
Orthotælia
Sparganella, b. Among *Sparganium*.
Phibalocera
Quercana, m. Among oaks, beeches, pear and apple trees.
W. *Exæretia Allisella* Among *Artemisia vulgaris*.
Depressaria
costosa Among broom and furze.
liturella Among *Centaurea nigra*.
assimilcella Among broom.

*Appearing in the Imago state—JULY.**Depressaria*

- Hypericella* Among *Hypericum*.
conterminella, b. Among osiers and willows.
 W. *Angelicella* Among *Angelica sylvestris*.
 M.W. *Carduella*
applanata, m. Among *Chærophylum* and other *Umbelliferae*.
 W. *albipunctella*
 W. *pulcherrimella*, m. Among juniper bushes?
 W. *Douglasella*, m. In chalky and sandy places.
Weirella, b. Among *Chærophylum sylvestre*.
 W. *Psoricoptera gibbosella*, e. Among willows.

Gelechia

- cinerella*, b. In bushy places in woods.
rufescens In hedges over grassy banks.
 W. *gerronella*, m. Among fern and heather.
Malvella, b. Among hollyhocks.
Populella On the trunks of poplars.
nigra, b. On the trunks of aspens.
 W. *temerella* Among willows.
 W. *lentiginosella*, m. Among *Genista tinctoria*.
mulinella, m. Among broom and furze.
 M.W. *palustrella*, b. In the Cambridgeshire Fens.
 W. *sororculella*, m. Among willows.
 W. *pelicella* Among heather, bramble, &c. (West Wickham).
 M.W. *alacella* Among oaks?
terrella Among grass.
desertella, b. On sandy coasts.
artemisiella, b. .. }
 W. *senectella*, b. } In dry sandy places.
 M.W. *similis* Among thatch.
affinis On sandy places and on mossy walls.
 M.W. *boreella*, m. In a boggy place, near Dunoon.
 M.W. *Galbanella* On the trunks of fir trees, Rannoch.
basaltinella, b. Among thatch.
domestica, m. In houses and on palings.
 W. *rhombella* Among apple trees.
 W. *humeralis*, e. Among oaks, in the New Forest.
vulgella Among hawthorn.
fugitivella Among maple and elm; on palings.
 W. *distinctella*, m. In chalky places.
maculea, m. {
tricolorella, m. { Among *Stellaria holostea*.
fraternella Among *Stellaria uliginosa*.
 M.W. *maculiferella*, b. On weedy banks.
 W. *Hübneri*, m. On the trunks of oaks in the North.
marmorea, b. On sandy coasts.

*Appearing in the Imago state—JULY.**Gelechia*

- w. *instabilella* On sandy coasts, among *Chenopodium* and *Atriplex*.
- atriplicella* Among *Chenopodium* and *Atriplex*.
- w. *sequax*, m. Among *Helianthemum vulgare*.
- leucatella*, b. Among hawthorn.
- nanella*, m. Among pear trees.
- Mouffetella*, b. Among honeysuckle.
- dodccella*, b. Among fir trees.
- w. *tenebrosella*, b. In dry places, among brambles?
- ligulella*, b. Among *Lotus corniculatus*.
- tæniolella* In chalky places.
- M.W. *Coronillella*, b. In the hilly field, at Headley Lane, by sweeping.
- atrella*, m. Among furze bushes.
- w. *bifractella* Among *Inula dysenterica* and *Conyza squarrosa*.
- w. *lucidella* In moist places among rushes?
- M.W. *lutulentella*, b. On heaths and in marshy places.
- gemmella*, c. Among oaks?
- ericinella* Among heather.
- M.W. *paupella* On the coast at Folkestone.
- w. *inopella*, b. Among *Inula dysenterica*, Folkestone.
- subocellea* Among *Origanum vulgare*.
- Parasia Lappella*, b. .. Among *Arctium Lappa*.
- w. *Metznericlla* .. Among *Centaurea nigra*?
- w. *Carlinella*, e. .. Among *Carlina vulgaris*.
- M.W. *neuropterella* .. In chalky and sandy places.
- w. *Cleodora Cytisella*, m. .. Among fern?
- w. *Anarsia Spartiella*, m. ... Among broom and furze?
- M.W. *Genistæ*, m. .. Among *Genista tinctoria*.
- Ypsolophus marginellus* . Among juniper bushes.
- M.W. *Nothris Verbascella* Among *Verbascum pulverulentum*, near Norwich.
- w. *Durdhamella*, b. On Durdham Downs and near Teignmouth.
- Sophronia*
- w. *parenthesella*, b. On chalk or sand, among furze? or broom.
- M.W. *humerella*, b. In dry sandy places.
- Pleurota bicostella*, b. .. On heaths.
- M.W. *Hypercallia*
- Christiernana*, b. In sandpits and chalky places.
- Dasycera Oliviella* Among oaks?
- w. *Æcophora*
- flavimaculella*, b. Among *Angelica sylvestris*.
- M.W. *formosella* Among decayed wood.
- lunaris* On palings and trunks of trees.
- M.W. *Lambdella*, b. Among furze bushes? in sandy places.
- w. *Panzerella*, b. In bushy places, Lewes.

Appearing in the Imago state—JULY.

- Ecophora*
fuscescens, m. In old hedges.
pseudo-spretella In houses, outhouses, &c.
- w. *Ægoconia* }
quadripuncta } In houses.
Endrosis fenestrella .. }
- Butalis senescens* In chalky and sandy places.
fusco-cuprea, b. .On Durdham Downs, near Bristol.
- M.W. *Cicadella* Near Brandon, in Suffolk.
- M.W. *Chenopodiella* .. Among *Chenopodium* and *Atriplex*.
- M.W. *torquatella*, b. .. Among mixed underwood, Torwood.
- Acrolepia granitella*.... Among *Inula dysenterica*.
- M.W. *Rösterstammia Erxlebella* On heaths.
- Glyphipteryx*
Thrasonella Among rushes.
- w. *Haworthana* On heaths, in the North.
equitella, b. Flies by day over the blossoms of *Sedum acre*.
- Fischeriella* On flowers generally.
- Douglasia*
Ocnerostomella, b. .. Among *Echium vulgare*.
- Argyresthia*
ephippella, b. In hedges.
nitidella, b. In hawthorn hedges.
- M.W. *purpurascetella*, m... In mixed hedges, in the North.
albistria. In hedges, among sloe bushes.
conjugella, b. Among mountain ash.
- M.W. *glaucinella*, b. In hedges, on palings, &c.
retinella, b. Among birches.
abdominalis, b. ... }
dilectella, m. } Among juniper.
- w. *Andereggiella*, m. .. Among wild apple.
curvella, b. Among orchard trees.
Sorbiella Among mountain ash.
pygmæella, b. Among willows.
Gædartella Among birches and alders.
Brockeella Among birches.
- w. *aurulentella*, m. Among juniper.
- Ccdestis*
farinatella, b. }
M.W. *Gysselinella*, b.... } Among fir trees.
Ocnerostoma
piniariella, b. }
- Gracilaria*
Syringella Among lilac.
- w. *omissella*, e. Among *Artemisia vulgaris*.
auroguttella Among *Hypericum*.
- M.W. *Ononidis* Among *Ononis spinosa*, *Genista tinctoria*, &c.

Appearing in the Imago state—JULY.

M.W. *Ornix Loganella*, b. Among nut-bushes? in Scotland, and in the Lake district.

Coleophora

- Fabriciella*, b. Among clover?
 W. *deauratella*, m. Among clover? at Pembury.
 W. *alcyonipennella*, b. .. Among *Centaurea nigra*.
 M.W. *Frischella*, b. Among clover? Isle of Wight.
 M.W. *Wockeella*, b. Among *Genista tinctoria*, at Pembury.
ochrea, e. In chalky places, among *Potentilla argentea*.
 W. *Lixella*, b. In chalky places, among *Holcus mollis*.
 W. *vibicella* Among *Genista tinctoria*.
 M.W. *conspicuellla*, m. Among *Centaurea scabiosa*, Headley Lane.
 W. *pyrrhulipennella*, b. .. Among heather.
 M.W. *Vulnerariae*, b. In sandy places.
anatipennella, b. .. }
 W. *palliatella*, b. } Among blackthorns, oaks, &c.
 M.W. *currucipennella*, b. .. Among oaks.
 W. *niveicostella*, b. In sandy and chalky places.
discordella, b. Among *Lotus corniculatus*.
 W. *saturatella*, m. On heaths and among broom?
Onosmella, b. Among *Echium vulgare*.
 M.W. *therinella*, b. In grassy places.
 W. *troglydytella*, b. Among *Inula dysenterica* and *Eupatoria Can-*
nabinum.
lineolea, b. Among *Ballota nigra* and *Stachys sylvatica*.
annulatella Among *Atriplex*.
 W. *argentula*, m. Among *Achillea millefolium*.
hemerobiella, m. Among pear trees.
 M.W. *juncicolella*, m. Among rushes?
 W. *albitarsella* Among ground ivy.
nigricella, b. Among hawthorn.
fuscedinella, b. Among elms and alders.
 M.W. *orbitella* In bushy places.
 W. *viminetella* Among willows and osiers.
 W. *solitariella* Among *Stellaria holostea*.
lutipennella, b. Among oaks.
 W. *badiipennella* Among ash trees and elms?
 M.W. *Stathmopoda pedella*, b. Among alders.

Cosmopteryx

- Drurella*, b. Among hops.
 M.W. *Lienigiella*, b. In the Cambridgeshire Fens.

Batrachedra

- præangusta*, m. Among poplars and willows.
 M.W. *pinicolella*, b. Among fir trees.
Oinophila V-flava In wine-vaults and wine-cellars.

Chauliodus

- M.W. *inscurellus*, e. On the downs at Stoats' nest.
 M.W. *Illigerellus* Among *Ægopodium podagraria*.

*Appearing in the Imago state—JULY.**Chauliodus*

- Chærophyllellus*, m. Among *Chærophyllo* and other *Umbellifera*.
 M.W. *Laverna propinquella* At Deal, Fulham, near Bristol, &c.
 W. *lacteella*, b. Among willows?
 W. *ochraceella*, b. Among *Epilobium hirsutum*.
 M.W. *Phragmitella* At Hammersmith Marshes.
 W. *Rhamniella*, Among buckthorn?

Chrysoclista

- Linneella*, m. On the trunks of lime trees.
 W. *Schrankella*, b. Among *Epilobium alsinefolium*.
 M.W. *Heliodines Roesella* Among *Chenopodium bonus Henricus*.
 M.W. *Anybia langiella*, m. Among *Epilobium hirsutum*.
 M.W. *Asychna æratella*, b. On flowers near corn fields; on sand.
 M.W. *terminella*, b. Among alders?

Elachista

- Gleichenella*, b. In grass, on chalk or sand.
 M.W. *magnificella*, e. Near Bristol.
 . *luticomella*, b. On palings (Dartford Heath), among *Dactylis glomerata*.
 W. *Kilmunella*, b. }
 W. *Rhynchosporaella*, b. } In mosses and mountain bogs.
 M.W. *Eleochariella*, m. }
 W. *biatomella*, b. } On Durdham Downs, near Bristol, and on sandy coasts.
 W. *triatomea* }
 M.W. *collitella*, b. } On chalk downs.
 . *pollinariella*, b. }

Lithocolletis

- M.W. *quinqueguttella* Among willows, in the North.
 M.W. *irradiella* "Among birches, in a damp wood, near Renfrew." J. S.
 M.W. *Scopariella*, b. Among broom.
 W. *ulicicolella*, b. Among furze.
 W. *Phyllocnistis suffusella* Among poplars.
 W. *saligna* Among willows.

Cemiostoma

- spartifoliella*, b. Among broom.
scitella, b. Among hawthorn, apple and pear trees.
 W. *Opostega salaciella* On dry banks, among grass.
 M.W. *crepusculella*, b. In boggy places.

Bucculatrix

- W. *maritima*, b. On sandy coasts.
Boyerella, b. Among elm trees.
Frangutella, b. Among buckthorn.
 M.W. *Nepticula quinqueella*, b. On the trunks of oaks, and on palings near oaks.
aurella Among brambles.

Trifurcula

- immundella*, e. Among broom.

Appearing in the Imago state.

AUGUST.

Ochsenheimeria

- Birdella*, b. In moist meadows, flying from 12—2, p.m.
 W. *Bisontella*, b. Among fern (Dartford Heath).
 M.W. *Tinea imella*..... In old hedges.
 M.W. *monachella*..... In the Cambridgshire Fens.
arcella, b. In old hedges.
corticella On the trunks of hornbeam.
cloacella..... }
ruricolella } In old hedges.
 W. *misella*, b. }
pellionella In houses.
Lapella In old hedges.
biselliella In houses.
 W. *nigripunctella* .. In houses, outhouses, &c.
 W. *ochraceella*, b. .. In ants' nests.

Swammerdamia

- cæsiella*, b. }
 W. *lutarea*, b..... } Among hawthorn hedges.
Pyrella, b. }

Hyponomeuta

- M.W. *vigintipunctatus*, b. .. Among *Sedum Telephium*.
plumbellus, b. Among spindle.
Padellus, b. Among hawthorn and apple trees.
Evonymellus, b. Among spindle.
Padi, b. Among bird-cherry (*Prunus padus*).
 M.W. *Anesychia bipunctella*, b. Among *Echium vulgare*.
Plutella Cruciferarum .. Among cabbages and other cruciferous plants.

- M.W. *annulatella*, c... On the coast in the North.
 W. *Dalella*, e. On moors in the North (Huddersfield).

- Cerostoma sequella* Among maple and elms.
vittella Among elms and beeches.
radiatella ... Among oaks.
costella Among oaks and beeches.
sylvella Among oaks.
alpella Among oaks.

- M.W. *scabrella* .. }
asperella, e. } Among apple trees.
Xylostella .. Among honeysuckle.

- w. *Theristis caudella*, e. .. Among spindle.

Orthotelia

- Sparganella*, b. Among *Sparganium*.
Phibalocera quercana, b. Among oaks, beeches, apple and pear trees.
 w. *Exæretia Allisella*, b. .. Among *Artemisia vulgaris*.

Depressaria

- costosa* Among broom and furze.

Appearing in the Imago state—AUGUST.*Depressaria*

- liturella* Among *Centaurea nigra*.
Umbellana Among furze.
w. *nanatella*, m. Among furze?
atomella Among broom.
arencella Among *Centaurea nigra*.
w. *subpropinquella* Among thistles.
Alstrœmeriana, e. .. Among *Conium maculatum*.
purpurea, e.
conterminella, b. Among willows and osiers.
M.W. *Carduella*, m.
ocellana Among willows.
applanata Among *Chærophyllum* and other *Umbelliferae*.
w. *ciliella*, m. Among *Angelica sylvestris*.
w. *Pimpinella*, e. Among *Pimpinella saxifraga*.
albipunctella
M.W. *emeritella*, e. Among *Tanacetum vulgare*.
w. *Douglasella*, b. On the coast and in chalky places.
Chærophylli Among *Chærophyllum temulentum*.
badiella, b. In chalky places.
Heracleana Among *Heracleum sphondylium*.
- Gelechia*
- Populella*, b. On the trunks of poplars.
w. *lentiginosella*, b. Among *Genista tinctoria*.
velocella, b. On sandy heaths, flies at mid-day.
mulinella, b. Among broom and furze.
diffinis, m. On sandy banks, among *Rumex acetosella*.
w. *acuminatella*, b. Among thistles.
domestica, b. In houses and on palings.
w. *humeralis* Among oaks? in the New Forest.
w. *distinctella*, b. In chalky places.
costella Among *Solanum dulcamara*.
w. *junctella*, m. On the trunks of oaks, Hainault Forest.
M.W. *vicinella*, e. On the coast, Brighton and Belfast.
w. *Hübneri*, b. On the trunks of oaks in the North.
marmorea, m. On sandy coasts.
w. *instabilcella* On sandy coasts, among *Chenopodium maritimum*.
atriplicella } Among *Chenopodium* and *Atriplex*.
obsoletella }
sequax Among *Helianthemum vulgare*.
albiceps, b. In orchards.
M.W. *immaculatella* "At West Wickham Wood."
Anthyllidella Among clover, *Anthyllis*, &c.
w. *bifractella*, b. Among *Inula dysenterica* and *Conyza squarrosa*.
gemmella Among oaks?

*Appearing in the Imago state—AUGUST.**Gelechia*

næviferella, b. } Among *Chenopodium* and *Atriplex*.
Hermannella, b. .. }

w. *pictella* On sandy coasts, and at Barnes Common.

w. *Brizella* Among *Statice Armeria*.

Parasia

Lappella, b. Among *Aretium Lappa*.

w. *Metzneriella*, b. Among *Centaurea nigra*?

w. *Carlina*, b. Among *Carlina vulgaris*.

M.W. *neuropterella*, b. In chalky and sandy places.

Ypsolophus

marginellus, b. Among juniper.

M.W. *Aplota palpella* Among clover? (Ripley and Hainault Forest.)

M.W. *Nothris Verbascella* Among *Verbascum pulverulentum*, near Norwich.

Dasycera Oliviella, b... Among oaks?

Œophora lunaris, b. .. On palings and trunks of trees.

unitella } In old hedges.

fuscescens, b. .. }

pseudo-spretella } In houses and outhouses.

Endrosis fenestrella .. }

M.W. *Butalis Chenopodiella* .. Among *Chenopodium* and *Atriplex*.

Aerolepia granitella ... Among *Inula dysenterica*.

M.W. *Betulella*, b... " Among birch trees, Castle Eden Dean.

M.W. Röslerstammia

Erxlebella, b. On heaths.

Argyresthia

semitestaeella, m. Among beeches.

w. *spiniella*, m. Among mountain-ash.

w. *semifusca* Among beeches? and *Clematis vitalba*.

w. *Andereggiella*, b. Among wild apple.

aurulentella, b. Among juniper bushes.

Zelleria

M.W. *hepariella* } Among ash trees.

M.W. *insignipennella* }

Graeilaria

Swederella, b. Among oaks.

M.W. *faleonipennella* Among alders?

tringipennella Among *Plantago lanceolata*.

auroguttella Among *Hypericum*.

M.W. *Ononidis*, b. Among *Ononis spinosa*, *Genista tinctoria*?

Coriscium

Brongniardellum, e... Among oaks.

Ornix Avellanella Among nut-bushes.

Anglicella In hedges.

M.W. *Betulæ* Among birches.

w. *torquillella* Among sloe-bushes.

Appearing in the Imago state—AUGUST.

- Coleophora*
ochrea, b. In chalky places, among *Potentilla argentea*.
M.W. *binotapennella* On the coast, near Brighton.
annulatella Among *Atriplex*.
Bedellia somnulentella .. Among *Convolvulus arvensis*.
Oinophila V-flava In wine-vaults and wine-cellars.
Chauliodus
M.W. *insecurellus*, b. On the downs, at Stoats' nest.
Chærophyllellus, b. .. Among *Chærophylllum* and other *Umbelliferae*.
Laverna Staintoni Among *Helianthemum vulgare*.
M.W. *Stephensi* On old thorns, Hainault Forest.
Epilobiella Among *Ephilobium hirsutum*.
Chrysoclista Linneella, b. On the trunks of lime trees.
M.W. *Anybia langiella*, b. Among *Ephilobium hirsutum*.
W. *Elachista Brunnichella*, b. In the hilly field at Headley Lane, by sweeping.
M.W. *magnificella*, b. Near Bristol.
M.W. *alpinella* "On moors, near Manchester." R. S. E.
nigrella In hedges.
subnigrella . . . Among *Bromus erectus*, on the chalk.
Bedellella Among the short grass of the chalk downs.
obscurella Among grass.
W. *zonariella* Near Bristol, Renfrew and Edinburgh.
Megerlella . . . In hedges over grassy banks.
cerusella, e. .. Among *Arundo phragmites*.
Tischeria marginea, b. .. Among brambles.
Lithocolletis
M.W. *Roboris* }
M.W. *hortella* } Among oaks.
M.W. *Amyotella* }
W. *Lantanella* Among *Viburnum Lantana*.
lautella Among oaks.
pomifoliella Among hawthorn.
Coryli Among nut-bushes.
spinicolella Among sloe-bushes.
Faginella Among beeches.
salicicolella Among willows.
carpinicolella Among hornbeam.
ulmifoliella Among birches.
Spinolella Among willows, in the North and West.
quercifoliella Among oaks.
Messaniella Among evergreen and common oaks.
corylifoliella Among hawthorn.
viminiella Among willows, in the West.
alnifoliella Among alders.
Heegeriella }
Cramerella } Among oaks.
W. *tenella* Among hornbeam.

Appearing in the Imago state—AUGUST.*Lithocolletis*

- sylvella* Among maple.
W. *emberizæpennella* Among honeysuckle.
W. *Dunningiella* Among oaks? and nut-bushes?
M.W. *Nicellii* Among nut-bushes.
M.W. *Stettinensis* }
M.W. *Klemmella* } Among alders.
Schreberella }
tristrigella } Among elms.
trifasciella Among honeysuckle.
W. *Seabiosella* Among *Scabiosa columbaria*.
W. *comparella* Among white poplars.
Lyonetia Clerckella Among apple trees, &c.
Cemiosoma Laburnella, b. Among laburnums.

Bucculatrix

- W. *aurimaculella* Among *Carices*?
Ulmella }
M.W. *vetustella*, m. } Among oaks.
M.W. *Hippocastanella*, b. Among limes, horse-chestnuts, &c.
W. *cristatella*, b. Among grass in chalky places, by sweeping.
Nepticula atricapitella } On the trunks of oaks, or on palings near
ruficapitella } oaks.
anomalella On palings near roses.
pygmæella Along hawthorn hedges, flying at sunrise.
W. *Oxyacanthella* On palings near hawthorn.
Cathartieella Among *Rhamnus Catharticus*.
M.W. *Headleyella*, b. In the hilly field at Headley Lane, by
sweeping.
M.W. *trimaculella* On the trunks of poplars, or on palings
near poplars.
floslactella Among nut-bushes and hornbeams.
W. *Salicis* On palings near willows.
microtheriella On palings near nut-bushes or hornbeams.
M.W. *ignobilella* Among hawthorn.
M.W. *Acetosæ* Among sorrel, by sweeping?
W. *plagicolella* On palings near sloe-bushes.
W. *Tityrella* On palings near beeches, or on trunks of
beeches.
W. *Malella* On palings near apple trees.
W. *marginiolella* On palings near elms.
aurella Among brambles.

Trifurcula

- M.W. *atrifrontella*, m. "From a mixed hedge, among oaks, Lew-
isham."
M.W. *squamataella*, m. Among broom (Charlton sandpit).
immundella, b. Among broom.

Appearing in the Imago state.

SEPTEMBER.

- Tinea fuseipunctella* . . } In houses.
pellionella }
M.W. *pallesecentella* . . . "In the streets of Liverpool." C. S. G.
biselliella In houses.
M.W. *Plutella annulatella*, b. . . On the coast in the North.
W. *Dalella*, b. On moors in the North (Huddersfield).
Cerostoma radiatella . . Among oaks.
costella, b. . . Among oaks and beeches.
sylvella, b. . . Among oaks.
M.W. *asperella* Among apple trees.
W. *Theristis caudella* Among spindle.
Depressaria
W. *pallorella* On the coast.
Umbellana Among furze.
atomella Among broom and *Genista tinctoria*.
propinquella }
W. *subpropinquella* . . } Among thistles.
purpurea
M.W. *Capreolella*
Yeatiana
applana Among *Chærophyllyum* and other *Umbellifera*.
W. *ciliella* Among *Angelica sylvestris*.
M.W. *granulosella* "At Deal." E. S.
W. *rotundella* Among *Echium vulgare*.
W. *Pimpinella*, b. Among *Pimpinella saxifraga*.
Chærophyllyi, b. Among *Chærophyllyum temulentum*.
W. *ultimella* On the coast (Folkestone).
nervosa Among *Phellandrium aquaticum*.
W. *Pastinacella* In chalky places.
Heracliana Among *Heracleum Sphondylium*.
Gelechia
W. *vilella* On the coast (Folkestone and Isle of Wight).
M.W. *basalis* "At Deal among *Hippophaë's rhamnoides*." E.S.
M.W. *cuneatella* Among willows, at Hackney.
W. *humeralis*, b. On the trunks of oaks? New Forest.
M.W. *celerella* "On the sand hills at Liscard, New Brighton."
costella, b. Among *Solanum dulcamara*.
M.W. *vicinella* On the coast, Belfast and Brighton.
marmorea, b. On sandy coasts.
W. *instabilella* On the coast, among *Chenopodium maritimum*.
Chelaria Hübnerella . . On the trunks of poplar.
Endrosis fenestrella . . . In houses.
M.W. *Butalis Chenopodiella* . . Among *Chenopodium* and *Atriplex*.
Acrolepia granitella, b. . Among *Inula dysenterica*.

Appearing in the Imago state—SEPTEMBER.*Argyresthia**semitestacella*, b. Among beeches.W. *spiniella*, b. Among mountain ash.*Zelleria*M.W. *hepariella* } Among ash trees.M.W. *insignipennella* }M.W. *fasciapennella* Among *Vaccinium Myrtillus*? or the Pentlands.*Gracilaria*M.W. *stramineella* In mixed underwood, Torwood.W. *hemidactylella* Among maple, at Whittlebury Forest.M.W. *falconipennella* Among alders?*senifascia* Among *Clematis vitalba*?M.W. *populetorum* Among poplars.*elongella* Among alders.M.W. *phasianipennella*, m... Among *Polygonum hydropiper*.*Coriscium**Brougniardellum*, b... Among oaks.W. *cuculipennellum* Among privet.*sulphurellum* In heathy places, among oaks?W. *Laverna decorella* In mixed hedges and by beating ivy.W. *Lyonetia padifoliella*, m. Among maple? at Whittlebury Forest.W. *Phyllocnistis suffusella* .. Among poplars.W. *saligna* .. Among willows.

OCTOBER.

*Chimabacche**Phryganella*, m. Among oaks, &c., flying by day.*Tinea ferruginella* In houses, old hedges and coalpits.*biselliella* In houses.*Cerostoma radiatella* .. Among oaks.M.W. *asperella* Among apple trees.*Depressaria*W. *Umbellana* Among furze-bushes.*propinquella*, b. Among thistle.*applana* Among *Chærophyllum* and other *Umbellifera*.M.W. *depressella* Among *Daucus Carota*.*Chelaria Hübnerella*, b. On the trunks of poplars.M.W. *Nothris Verbascella* .. Among *Verbascum pulverulentum*, at Norwich.*Endrosis fenestrella* In houses.M.W. *Butalis Chenopodiella* .. Among *Chenopodium* and *Atriplex*.*Zelleria*M.W. *hepariella* Among ash trees?M.W. *fasciapennella*, b. Among *Vaccinium Myrtillus*? on the Pentlands.*Gracilaria**stigmatella* Among sallows, willows and poplars.

*Appearing in the Imago state—OCTOBER.**Gracilaria*

- M.W. *falconipennella*, b. Among alders ?
semifascia, b. Among *Clematis vitalba* ?

- M.W. *phasianipennella*, b. Among *Polygonum hydropiper*.

Coriscium

- W. *cuculipennellum* Among privet.
sulphurellum In heathy places, among oaks ?

Bedellia somnulentella, b. Among *Convolvulus arvensis*.

Chauliodus

Chærophyllellus, b. Among *Chærophyllum* and other *Umbelliferae*.

- W. *Laverna decorella* In mixed hedges, and by beating ivy.

- W. *Lyonetia padifoliella*, b. Among maples ? at Whittlebury Forest.

Phyllocnistis

- W. *suffusella*, b. Among poplars.

- W. *saligna*, b. Among willows.

NOVEMBER.

- W. *Exapate gelatella*, m. Sitting on old palings at night.

Chimabacche

Phryganella Among oaks ? flying by day.

Tinea biselliella }
Endrosis fenestrella } In houses.

Lithocolletis

Messaniella, b. Among evergreen and common oaks.

trifasciella, b. Among honeysuckle.

DECEMBER.

- W. *Exapate gelatella* Sitting on old palings at night.

Endrosis fenestrella In houses.

ON THE HABITS OF *TINEINA* LARVÆ.

BEFORE commencing the Calendar of *TINEINA* appearing in the *Larva* or *Pupa* state, a few general remarks on the mode of feeding, and methods of ensuring concealment, practised by the larvæ of different genera, will not be useless to the beginner, who is in the habit of going out daily, yet finding nothing—simply because he knows not how to look. The mariner steers his ship by the aid of the compass; he sees not the magnetic pole to which the compass points, but he knows where it must be by looking at the direction of the compass. The otherwise unaccounted-for perturbations of Uranus led to the discovery of Neptune. In short, an effect must be produced by some cause. Now in searching for the larvæ of the *TINEINA*, we first perceive the effect—a blotched leaf, a puckered flower, a twisted leaf; we then seek for the cause, and on examination find some minute larvæ: this experiment repeated two or three times, we learn so to associate cause and effect that we do not need to rip open every mined leaf to see if the operator is within, but we conclude that he is there, and trust to our skill to enable us to rear him to maturity. Some acquaintance with the Flora of our country is absolutely necessary, or we should be continually mistaking the natural markings and forms of plants for blotches and distortions caused by minute larva; it is the *deviations* from their natural colour and form to which we require to pay attention. The larvæ for which we seek feed on every form of vegetable growth—the forest tree, the spreading bush, the flowering plants, the grasses, the mosses, lichens and fungi. They are distributed over every part of a plant; some in the buds, some in the flowers, some in the fruit, some on or in the leaves, the stem, or the root; and, if the object of attack be a tree, some will be found beneath the bark. To learn how to find them in all these varied situations is the great object of the collector; and for this purpose, besides watching closely for deviations from the usual form as already mentioned, he searches attentively for any indications of the presence of larvæ. A larva has but one object in life, to eat and grow fat (they are perhaps not aware that laughter might

produce the same effect); for this purpose their jaws are in incessant motion, and the effects of their voracity speedily become apparent; the half-eaten leaves attest but too surely that some devourer is near. These indications of the presence of a larva are expressed in the German language by the single word "*frass*," and we may, without impropriety, use the same word for the purpose of expressing the immediate effect of the larva's jaws, and the more indirect effect of the excrementitious matter ejected by the larva. Whenever, therefore, we observe any "*frass*," we ought to search for the cause that has produced that effect.

As the larvæ of different genera have frequently peculiar modes of feeding, I proceed hastily to run through the genera, pointing out the modes by which their respective larvæ may be most readily found.

EXAPATE, DASYSTOMA, AND CHIMABACCHE.

These larvæ are principally to be found between united leaves, the upper leaf assuming a slight curvature, in order to afford a convenient space for the rather large larva; for as two straight lines cannot include a space, so two flat leaves closely applied cannot contain between them a fat larva. They eat voraciously the leaves in their immediate neighbourhood; the larvæ of several of the species (*C. Fagella*, for instance) have the third pair of legs club-shaped.

TALÆPORIA, SOLENOBIA, DIPLODOMA AND XYSMATODOMA.

These larvæ construct portable cases, in which they may be found on palings, trunks of trees, &c. When the colour of the case is the same as the colour of the palings, it requires a very close search in order to distinguish them.

OCHSENHEIMERIA.

Of only one species (*Birdella*) has the larva hitherto been observed; it burrows down the stems of grass, but we are still unacquainted with the best mode of discovering its presence.

EUPLOCAMUS AND TINEA.

The larvæ of the former and many of the latter genus feed on the tree-growing fungi (*Boleti*); several of the *Tinea* larvæ feed in decaying wood. Whether they betray themselves by an appearance of “*frass*” in their vicinity I am not aware. A few of the *Tinea* larvæ feed on woollens and other similar substances; some constructing portable cases, others feeding in covered galleries, or runs, which they make by spinning together their “*frass*.”

LAMPRONIA AND INCURVARIA.

Some of these larvæ feed in the pith of plants, such as raspberry and currant-bushes (*L. Rubiella*, *I. capitella*), betraying themselves by the sickly, withered appearance of the shoots; others feed in flat portable-cases, shaped like a figure of eight, or like a fiddle with the handle broken off, which they attach to the underside of the plant on which they feed; others feed in flat ill-made cases formed of pieces of dead leaves, amongst which they must be sought on the ground. If we find an oval piece cut out of a dead leaf, we conclude one of these larvæ must be near. I believe it requires some little patience, as well as perseverance, to find these case-makers, at any rate I have never succeeded in finding any.

A singular larva, of which the perfect insect is at present unknown to us, mines the leaves of the dogwood in summer and autumn, making large greenish blotches; and eventually spinning the two cuticles together, it cuts out a small, flat, elliptic case, and descends to the ground (a larva with a similar habit has been recorded as mining the leaves of the vines in the south of Europe). To what genus our dog-wood larva should be referred we are entirely ignorant, but as it somewhat resembles in habit the *young* larvæ of *I. pectinea*, I thought this the fittest place to mention it.

LAMPROSETIA.

“Chenille sur capillaire,” says Bruand. But what is “capillaire?” At any rate the larva appears to be a case-maker.

MICROPTERYX, NEMOPHORA, AND NEMOTOIS.

Larvæ entirely unknown.

ADELA.

The larva of *Degeerella* has long been known, as feeding on various low plants in spring in a flattish, oblong case; it has never been found in this country; in all probability other larvæ of this genus have similar habits. How to go to work to find them I really cannot say, but the best plan would be to search on the ground in places where the perfect insects occur.

SWAMMERDAMIA AND SCYTHROPIA.

These larvæ spin a few leaves together, or make only a little spinning on the upper surface of one leaf, whence they protrude their anterior segments in various directions in quest of food, but readily take alarm, retreating to the centre of their web.

Some of the *Swammerdamia*, and the only species of *Scythropia*, are gregarious. The solitary larvæ resemble in habit *Simaëthis pariana*, which, though it sounds paradoxical, may be most easily collected when it cannot be seen. For a heavy dew, which falling upon its web, renders it conspicuously visible, at the same time prevents us from seeing the larva beneath the web.

HYPONOMEUTA.

If a bush is defoliated and covered with webs, unless *Clisiocampa Neustria* has done the deed, surely some *Hyponomeuta* is the culprit; nobody who has once seen a nest of these larvæ will fail to recognise them again; in ordinary parlance they are frequently termed *the blight*. (See "Letters of Rusticus.")

ANESYCHIA.

These truly magnificent larvæ must be conspicuous from their gay colours alone, and probably we must thank the larvivorous birds for the perfect insects being so rare in our collections, because if a tom-tit picks up all the larvæ, how is an unfortunate larger

biped, i. e., a collector, ever to pick up the perfect insect. But could not the collector pick up some of the larvæ instead of leaving them all to tom-tits? well, so he might if he would look for them.

CHALYBE.

We may probably now expect our Rannoch collectors to try Sutherlandshire, when perhaps they may send us some information with regard to the larvæ of this genus, of which at present we know nothing. They will hardly allow Mr. Buxton to have the credit of being *too far north* for them.

PRAYS.

All I can say of the larva of the only species of this genus is, that it feeds in the unopened buds of the ash, and probably indicates its presence by some "*frass.*" I imagine when very young (in autumn) it mines the leaves.

EIDOPHASIA.

Larva entirely unknown.

PLUTELLA.

The larvæ feed on the leaves of Cruciferous plants (as far as at present known), are rather sluggish, generally feeding on the underside of the leaf; but sometimes feeding on the upper side, thus curling the leaf.

CEROSTOMA and THERISTIS.

These larvæ appear to spin a few leaves together, but are very lively and active, and come running out on the slightest alarm of danger; the larva of one species (*C. nemorella*) is stated to feed on the *bark* of the honeysuckle.

ORTHOTELIA.

The larva of the only species of this genus mines and burrows in the leaves and stems of *Sparganium*; its marks are very evident, but the larva itself frequently goes rather deep, and it is therefore

advisable to pull up the attached plants by the roots; it is not desirable to keep the plant in-doors, for it very soon emits an odour little inferior to that of rotten eggs.

SEMIOSCOPIIS, ENICOSTOMA, AND PHIBALOCERA.

These larvæ feed between or under turned down leaves: in the latter case we see a leaf curved laterally downwards; looking at it from above, we can see no cause for the deflection, but on turning it over we see the larva and its web distinctly enough.

EXÆRETIA.

Larva entirely unknown.

DEPRESSARIA.

In the first place we must look to the *Umbelliferæ*. Are the leaves folded in any way? are the flower-heads drawn together? are the seeds conglomerated? All these symptoms would betoken *Depressaria* larvæ; but they may also be found on several other plants—*Centaurea nigra*, *Hypericum* and Sallow; on these plants they either roll the leaves somewhat *à la Tortrix*, or screw up the heads. It is in vain the *Hypericum* or the Sallow insists upon expanding the shoot; the larva has possession of the citadel, and right or wrong he holds what he has got. Some of the broom-feeding species unite several twigs, forming a nest and eating the leaves in their vicinity.

PSORICOPTERA.

But for Madame Lienig, to whom all Micro-Lepidopterists owe so much, we should have been entirely ignorant of the larva of the only species of this genus; from her observations, however, we learn that it turns down a corner of a leaf (of Sallow).

GELECHIA.

It has been remarked by one who has much attended to this genus, that every mode of feeding observed among the larvæ of *Tineina* is represented in the larvæ of *Gelechia*; whence it follows that no particular mode of feeding is *general* among *Gelechia* larvæ,

and to *particularize* would here exceed my proposed limits. (See I. B. pp. 102, 103.)

PARASIA.

In the heads of composite plants these larvæ are to be found. No external sign betrays their whereabouts; but if we find a locality where they occur, we may safely collect the heads at random.

CLEODORA AND CHELARIA.

Larvæ entirely unknown.

ANARSIA.

The larvæ feed in the terminal shoots of plants (broom and dyers' weed); how they betray their presence I know not.

YPSOLOPHIUS.

The larvæ roll up the leaves of plants, or form a mass of web on the twigs. Such a web, which might very well pass muster for the abode of a spider, may be observed on juniper bushes: within it is the larva of *marginellus*; the yet-to-be-found-in-this-country *juniperellus* does similarly.

NOTHRIS.

The larva of *Verbascella* (the only one known) mines the leaves of its food-plant when young, afterwards makes a gallery of the flock on the leaves; it is fat and moderately sluggish, and, turning down a corner of a leaf when full fed, spins a cocoon and changes therein to the pupa state.

APLOTA, SOPHRONIA, PLEUROTO AND HYPERCALLIA.

Larvæ entirely unknown.

HARPELLA, DASYCERA AND ŒCOPHORA.

These larvæ, as far as known, excepting some seed-feeding larvæ of *Œcophora*, feed on decaying wood, especially preferring to get between the bark and the wood; they make a considerable amount

of “*frass*,” by which their presence may be detected; the larva which feeds on the seeds of the wild-carrot may belong to this genus, but on the other hand it may be a *Tortrix* larva.

ÆGOCONIA AND PANCALIA.

Larvæ entirely unknown.

ENDROSIS.

This larva appears really omnivorous. Madame Lienig declares she bred it from salt.

BUTALIS.

The larva of only one species in this genus is at present known: that (*Chenopodiella*) forms a slight web on the upper surface of the leaves of *Chenopodium*, *Atriplex*, &c.

ACROLEPIA.

The larvæ are leaf-miners, making large white blotches, and moving readily from one leaf to another.

RÖSLERSTAMMIA.

“When doctors differ the patient dies.” Now, with reference to the larva of the only species of this genus the doctors do differ. I have, however, with all courtesy to Madame Lienig be it said, a leaning to Tischer’s opinion, viz. that it feeds on heath, uniting several twigs, and forming a longish web between them.

GLYPHIPTERYX.

But for the indefatigable exertions of Mr. Weir this genus would, like so many others, have been a blank to us; he has, however, furnished us with the clue which may lead to the discovery of several other of the larvæ, for if the larva of *equitella* mines the shoots of the *Sedum acre*, bleaching them and causing them to wither, should not the go-a-head collectors of the North (who think all Manchester beats all London hollow) find the larva of *Haworthana* in the shoots of heather?

ÆCHMIA, PERITTIA, TINAGMA AND DOUGLASIA.

Larvæ entirely unknown; though no one who has seen the affinity of *D. Ocnerostomella* for *Echium vulgare* can doubt that the *Echium* bears to it that essential relation of food-plant.

Here, it strikes me, will most opportunely come in a very singular polyphagous mining larva, perhaps not LEPIDOPTEROUS, but which, not having been claimed by the collectors of any other order, I think we ought not to despise and utterly reject till we have bred it; it mines the leaves of hawthorn, sallow, &c., in autumn, making small blotches; I have called it an *onisciform* miner, but that does not correctly define its singular form, which is nearly *egg-shaped*, the head being placed at the broader end. I do not know what this larva can be, and should probably do wrong by hazarding an opinion; but granted it is a larva, which I think can hardly be doubted, then it follows *it must turn to something*; it may be something as little suspected by us as were the STREPSIPTERA before they had been observed.

ARGYRESTHIA.

The larvæ, in order to do as much mischief as possible with the least amount of labour, eat out the buds of the young shoots of plants. However, as I have elsewhere observed, the luxuriance of vegetation counterbalances their evil propensities; and it may be, that, but for these insignificant looking insects, the plants would suffer from a redundant growth of their shoots, not allowing them sufficient flow of sap to enable them to ripen their seeds; just as we frequently find some apparent calamity develops some latent good, which otherwise might never have been called into existence. The buds wherein these larvæ are will generally be observed contorted or drawn together, though to find the actual operator they require to be carefully opened.

CEDESTIS.

See Logan's Illustrations of Scottish Lepidoptera. The larvæ were previously unknown.

OCNEROSTOMA AND ZELLERIA.

Larvæ entirely unknown—yet I have bred a *Zelleria*; but then I never saw, or never noticed, the larva. All I know is, that it came out of a white cocoon on an ash-leaf, which I had in a jam-pot *by itself*, and that the ash-leaf had evidently been eaten. Perhaps it was a sly parting present from my friend Professor Zeller, for, singularly enough, it appeared the very day he left. *Sic omnes*.

GRACILARIA.

Conceive the delight of the first grocer's apprentice who discovered that by twisting a straight piece of paper in a peculiar way he could form a cone wherein to put a pound of sugar! yet the larvæ of this genus have no doubt constructed, from the earliest ages, their cones in the same way that we now see them; simple as these cones appear to us, they are really wonderful contrivances, and by them we can at once recognise a *Gracilaria* larva. Some few of these larvæ are regular leaf-miners, others roll the leaves up laterally (as *Syringella*), or longitudinally (as *elongella*).

CORISCIMUM.

The larva of one species (*Brongniardellum*) is a leaf miner, and, if my information be correct, several larvæ mine in one leaf; the larva of another (*cuculipennellum*) rolls up the leaves of the privet in a conical form.

ORNIX.

The larvæ when young mine the leaves, and may then be readily mistaken for *Lithocolletis* larvæ; but they do not always remain miners, and on attaining their majority they turn down a corner of a leaf, and eating there the upper cuticle and epidermis, cause a discoloration of the turned-down part. Having soon devoured all that is to their taste, they quit their abode, which they leave nearly full of excrement, evidently thinking that exchange is no robbery, and repeat the operation on another leaf. A species which feeds on the hawthorn (*Anglicella*) is so continually on the

move, that it is very difficult to find it at home ; at any rate if the turned-down place, which on the hawthorn leaves has a conical form, is brown, the larva is gone, and to obtain the larva the cone must be green, otherwise the greenness appertains to the collector.

COLEOPHORA.

These larvæ are all case-bearers, feeding on the leaves and seeds of plants ; the leaf-feeders are easily detected, for attaching the case to the underside of the leaf, they penetrate the cuticle and devour the parenchyma, thus mining the leaf, which becomes discoloured. The mine of a *Coleophora* can always be recognised, even if the larva has left it by the round hole where the case had been attached ; the seed-feeding species are less easily detected, as there is no discoloration to indicate their presence, and it requires a nice eye to distinguish a small piece of a case projecting from a capsule or seed-head. Most of the seed-feeding species have been first discovered by some fortunate accident ; for, as Fischer observed with respect to the discovery of the larva of *Goniodoma auroguttella*, all *great* discoveries are the result of accident.

BEDELLIA.

A mining larva, making large whitey-brown blotches in *Convolvulus* leaves ; it moves readily from leaf to leaf.

STATHMOPODA.

If the Linnæan assertion, that the larva mines alder-leaves, be incorrect, this larva is entirely unknown to us.

COSMOPTERYX.

“One swallow does not make a summer,” and it takes more than one collector to make out the larva of a species ; hence the great advantage that metropolitan collectors have over their provincial brethren. Whether we profit sufficiently by this advantage may well be doubted, yet on many occasions I have observed that three or four heads have been at work, each supplying some link in the chain of discovery. The larva (which I have no reason to

doubt is that) of *Drurella*, mines the leaves of the hop along a rib, making oblong blotches, but when full fed quits the leaf. (See I. B. p. 229.)

BATRACHEDRA.

The larva of one species (*præangusta*) is stated to feed between united leaves; the larva of the other is unknown.

OINOPHILA.

The larva is said to feed in the corks of wine-bottles. Where did it feed before wine, bottles or cork were used?

CHAULIODUS.

The larvæ that are known feed on *Umbelliferae*; that of *Chærophyllellus*, the only one with which I am personally acquainted, feeds on various *Umbelliferae*, mining the leaves when young, afterwards eating the leaves half through from the outside, thereby completely discolouring them and turning them brownish; being fond of company there are frequently thirty or more on a plant, which soon changes its healthy green hue for a dismal brown, and any one looking at the discoloured plant would suspect a vitriol factory was near.

LAVERNA.

Of the few larvæ of this genus known, one (*Epilobiella*) screws up the tops of its food-plant; the others are leaf-miners, but are able to move from one leaf to another.

CHRYSOCLISTA.

“Who would have thought it? Well, I never” thought that the larva of *Schrankella*, being a leaf-miner, that of *Linneella* would have fed *under the bark of a tree*; but truth is stranger than fiction.

HELIODINES.

The gregarious larvæ of the only known species draws several leaves of its food-plant (*Chenopodium*) together.

ANYBIA.

Like the greater part of the larvæ of the genus *Laverna*, the larva of the only known species of this genus is a leaf-miner.

ASYCHNA.

How appropriate some names are! When I was working at this genus, I found it such a complete *sickener*, that I several times left it in disgust, and now, “*pour comble de malheur*,” none of the larvæ are known. Howbeit I will here mention two or three larvæ which have fallen under my own observation, but which not having arrived at maturity I know not precisely where to place.

Firstly, a larva mining, in September and October, the leaves of the *Circæa lutetiana*, making spiral mines, eventually going off at tangents, and subsequently moving from leaf to leaf; when full fed it quits the leaf, and forms a whitish cocoon; these larvæ I found near Ticehurst, in Sussex: secondly, a small mining larva making dark brown blotches in the leaves of the *Origanum vulgare*, which, when full fed, quits the mine and forms a cocoon; it occurs in July and August, at Box Hill and near Sanderstead: and thirdly, a larva discovered by Mr. Wing, making brown blotches in the leaves of honeysuckle in July, quitting the leaf when full fed, and changing to a singularly flat pupa.

CHRYSOCORYS.

Hübner has figured the larva of the only species known in this genus; but in spite of his figure, a copy of which may be seen in “Curtis’s British Entomology,” no one can find the larva; yet we take the perfect insect, which must have pre-existed in the larva state. However, it is not easy to look on the *under side of bramble leaves*, which perhaps accounts for our being so slow at re-discovering this singular larva.

ELACHISTA.

How easy it *now* is to find these larvæ! All yet known are grass-miners, and are to be detected by the presence of white,

whitish, or brown streaks or blotches on the grass. It is true it requires pretty close looking, a sharp eye, and better still, a little practice, in order to enable us to find them; however, the clue once found to their habits it is now only a question of time as to the discovery of the larvæ of all our species. They prefer sheltered places, such as the sides of ditches, the grass growing in the shelter of hedges and bushes;—and the collector must place himself on the ground if he wishes to succeed in his researches—he must prostrate himself at the feet of the goddess *Elachista*; it is true he may get a reputation for insanity by such conduct; however, his insanity will be of a different sort from that which leads an individual to stand for hours at the side of a stream waiting for a “glorious nibble.” The object of the latter lunatic is rarely any other than to kill *time*, it being even less an object to kill fish; the fish will be no use to him when caught, perhaps not worth eating,—but by trying to catch the fish he has escaped for a few moments from the intolerable *ennui* of doing nothing. Now our *Elachista*-loving lunatic seeks for a larva, perhaps unknown to science, but at any rate with the view of rearing the perfect insect, to be displayed for years in his collection, or that of some brother of the net. Let then the angler, when disgusted with his want of sport, sit down on the bank, begin to pick up by the roots—not his hair—but the grass; it may be he will find an *Elachista* larva, which may induce him to turn his attention to Entomology, and though he may run the risk of being counted insane, he will have the gratification of reflecting that there is some “method in his madness.”

TISCHERIA.

These larvæ mine in the leaves, forming rather large blotches; they assume the pupa state within the mine.

LITHOCOLLETIS.

These larvæ are all leaf-miners, and always contort or twist the leaf more or less. When we see a leaf that is not flat it must either have a tendency upwards or downwards (the latter is most frequently the case). If upwards, we look on the upper surface of

the leaf, and we there see a whitish blotch, indicating the presence of the larva; if the leaf turns downwards, we look beneath it, and we then perceive the brownish or whitish mine of the larva.

The plants on which these larvæ occur are oak, birch, elm, willow, osier, apple and pear, hawthorn, sloe, cherry, alder, nut, *Viburnum lantana*, beech, hornbeam, maple, honeysuckle, and *Scabiosa columbaria*. On the continent several species have been found on poplars, two species from broom (on which no doubt our *L. Scopariella* feeds), and a species from one of the vetches.

Any *Lithocolletis* larva found on any plant not above enumerated will probably be new to us.

LYONETIA, PHYLLOCNISTIS AND CEMIOSTOMA.

The larvæ of the two former genera I have never met with: they are miners; that of *L. Clerckella* making long tortuous galleries, quitting the leaf when full fed; those of *Phyllocnistis* mine in great blotches, changing to the pupa within the leaf. The larva of one *Cemiostoma* (*spartifoliella*) mines under the bark of broom; the other two are leaf-miners, but the mine of *Laburnella* is large and greenish white, that of *scitella* is small, dark brown, and has very much the appearance of blister on the cuticle of the leaf, being most discoloured in the centre, and clearly formed of concentric rings.

It should be borne in mind that the poplar-feeding *Susinella*, and the Hypericum-feeding *lustratella*, probably only require to be carefully sought for, in order to enable them to rank as British species. At one time Mr. Douglas and myself quite thought we had found the larva of *lustratella*, and were not a little surprised when the imago turned out to be *N. Septembrella*.

OPOSTEGA.

Larvæ entirely unknown. Yet it may not be amiss to mention here a larva found last November in grass near Beckenham, which mined the grass, not like an *Elachista*, but like a *Lithocolletis*; what these larvæ will produce yet remains to be seen.

BUCCULATRIX.

The larvæ of this genus *undergo a transformation whilst yet in the larva state*, i. e. the young larva is totally different in form, colour, marking and habit from the adult larva. Every one knows the consternation which pervaded the pin-makers when it got noised abroad last summer that a new *Nepticula* larva had been discovered, about half the size of the smallest previously known, *N. microtheriella*. Many of my correspondents were in despair when they heard the news, for it seemed an impossibility that a moth so small could ever be pinned. However, to the great relief of the pin-makers and the pin-users, the small larva, after being “a nine-days wonder,” underwent its transformation, and was recognised as a *Bucculatrix* larva. This small miner was found in the hawthorn leaves, which it afterwards eats externally, after remaining for a day or two in a state of inaction (not—like the whitings in Peter Simple—with its tail *in* its mouth, but at any rate with its tail *close* to its mouth) in a small cocoonet on the under side of the leaf of hawthorn; consequently when we find a minute mine, either tortuous, as in *Cratægi*, or spiral, as in *Frangutella*, we know it must be a *Bucculatrix* mine, more especially if the larva has quitted it, otherwise it might pass for the mine of a young *Nepticula* larva.

It is a singular instance of the correctness of the proverb, “You may take a horse to the water but you cannot make him drink,” that in Fischer’s figure of *Rhamnifoliella* (*Frangutella*) he has shown the purple blotches on the leaves formed by the spiral mines of the larva, without being aware what they were.

NEPTICULA.

So recently have I stated all I knew on the subject of *Nepticula* larvæ and their mines (see *Zoologist*, 1853, p. 3952), that I feel half inclined to skip this genus here; but some there may be who do not see the *Zoologist*, a publication which has probably contributed nearly as much as the penny postage to the rapid and almost instantaneous transmission throughout the length and breadth of

the land of new ideas, new facts, and new discoveries in Entomological science. Many there are—myself among the number—who owe their first admission into the circle of Entomologists to their contributions to that monthly magazine. For years I had collected diligently; I had formed, as I thought, a very decent collection, but till 1845 I worked alone; I knew no Entomologist, and how was I to get to know one. A happy chance led to my hearing of the Zoologist, to my procuring it, to my timidly writing a short notice of *Plusia Interrogationis* and *bractea* flying by night, and to my subsequently (emboldened by my having seen my first notice in print) sending a long list of captures made in Scotland that summer. The effect of this notice I little foresaw, for within a week of publication it produced me letters from several of the principal Lepidopterists; some inquiring as to the actual nature of my captures, some offering assistance, some asking for rare species I appeared to have found in plenty—but my object is not to relate, with the garrulity of an old man, my own sayings and doings in by-gone days, but to call the attention of my readers, if any there be who are yet, as I once was, working alone, with no Entomological friend to counsel, advise and assist, that the communication of some notice of their doings to the Zoologist might lead to their being assisted by others, as I have been. Of course I can easily imagine that some may have a repugnance to appearing in print; but if that be the case, and they shrink from writing to the Zoologist, I shall be happy to reply to any letter they may like to send me, and shall not consider they are taking any liberty in addressing a stranger, but, on the contrary, I shall deem it rather a compliment. But to return from this digression: the larvæ of *Nepticulæ* are all leaf-miners, mining generally in narrow galleries, but some few make blotches. It requires a little practice to find them, and especially it must be borne in mind that the mines are most evident after the larva has quitted them; and the empty mines, therefore, rather distract our attention, and tend to prevent us from seeing the full ones. Several new mines have been detected since last July: one of which is a long gallery in the leaves of *Potentilla fragariastrum*; another is a blotch, somewhat after the fashion of

Cemi. scitella, in the leaves of the birch; others have been found in sloe, apple, and beech.

TRIFURCULA.

The larvæ of this genus are entirely unknown to us.

In the following Calendar of *TINEINA* appearing in the *Larva* or *Pupa* states, the insects are enumerated under those months when they may most advantageously be collected. It is no use to catch the *very little* fish; it is better to wait till they grow big, and then to catch them; so there is no fun in having to take care of a larva for three months when three weeks will suffice, if we look for them at the proper time. The letters b. m. e., w. and m. w. are used as in the previous Calendar.

It may not be amiss to remind some of my readers that larva-collecting is far more certain, and far more profitable, than collecting the perfect insects:—it is more certain; for the internal feeders retain their places whether the wind is south-west or north-east,—whether it blows a gale, or is a dead calm,—whether the sky is clear and the sunshine bright, or whether it is cloudy and dull,—whether it is dry, or pouring with rain; only adapt your clothing to the weather, and you may collect larvæ *whenever you choose*:—it is more profitable; rare insects, or insects *never seen in the perfect state*, may be obtained in plenty as larvæ; the specimens being bred will be finer, and more than that, you will ascertain the distinctness of species, which otherwise might never be satisfactorily made out.

Of those larvæ marked † I should be glad to receive specimens, should any Entomologist have the good fortune to fall in with more than he requires for his own uses.

THE names of some of the species being in capitals denote that the larvæ and their modes of feeding have been figured by Mr. Wing, in the Transactions of the Entomological Society, in illustration of Mr. Douglas's "Contributions towards the Natural History of British Microlepidoptera."

CALENDAR OF BRITISH TINEINA

Appearing in the LARVA *or* PUPA *state.*

JANUARY.

- Solenobia inconspicuellæ* † . . . On palings, trunks of trees, &c.
Euplocamus Boleti † In fungi.
Tinea parasitella † In fungi or decayed wood.
Lampronia prælatella In cases, among wild strawberry.
Incurvaria muscællæ, P. . . } In cases, among dead leaves.
 pectinæ, P. . . . }
Gelcchia rufescens In rolled up grass (young).
 affinis In moss, on walls.
 bifractella In the seeds of *Inula dysenterica* and *Conyza squarrosa*.
 cercælella † In grains of barley.
 inopella † In the heads of *Inula dysenterica*.
 subocellea In cases, on the heads of *Origauum vulgare*.
Parasia Lappella In the seeds of *Arctium Lappa*.
 Carlinaella Below the seeds of *Carlina vulgaris*.
Dasycera sulphurella In old posts, decayed wood, &c.
Æcophora pseudospretella . . } Among seeds, &c.
Endrosis fenestrella }

GRACILARIA

- AurogutteLLA*, P. . . . In "cigars," on plants of *Hypericum*.
Coleophora cæspititiella On heads of rushes.
 ALBITARSELLA . . . On *Glechoma hederacea* in sheltered places.
Lithocolletis Roboris, P. . . }
 hortella, P. . . . } In oak leaves.
 Amyotella }
Lantanella In leaves of *Viburnum lantana*.
lautella, P. . . . In oak leaves.
carpinicolella, P. . . In hornbeam leaves.
quercifoliella, P. . . In oak leaves.
Messaniella In the leaves of evergreen, oaks (young).
Heegeriella, P. . . } In oak leaves.
 Cramerella, P. . . }
tenella, P. In hornbeam leaves.
 SCABIOSELLA . . . In the leaves of *Scabiosa Columbaria* (young)
Nepticula aurella In bramble leaves.

Appearing in the Larva or Pupa state.

FEBRUARY.

- Solenobia inconspicuella* † . . . On palings, trunks of trees, &c.
Euplocamus Boleti † In fungi.
Tinea parasitella † In fungi or decayed wood.
 bisellicella On hair, feathers, &c.
Lampronia prælatella In cases, among wild strawberry.
Incurvaria muscalcella, P. . . . }
 pectinea, P. . . . } In cases, among dead leaves.
Gelechia rufescens In rolled up grass (young).
 affinis In moss, on walls.
 bifractella In the seeds of *Inula dysenterica* and *Conyza squarrosa*.
 cerealella † In grains of barley.
 subocellea In cases, on heads of *Origanum vulgare*.
Parasia Lappella In the seeds of *Arctium Lappa*.
 Carlinaella Below the seeds of *Carlina vulgaris*.
Dasycera sulphurella In old posts, decayed wood, &c.
Ecophora pseudospretella . }
Endrosis fenestrella } Among seeds, &c.

GRACILARIA

- AUROGUTTELLA*, P. In "cigars," on plants of *Hypericum*.
Coleophora cæspititiella On heads of rushes.
 ALBITARSELLA . On *Glechoma hederacea* in sheltered places.
Lithocolletis Roboris, P. . . }
 hortella, P. . . } In oak leaves.
 Amyotella, P. . . }
 Lantanella In leaves of *Viburnum lantana*.
 lautella, P. . . . In oak leaves.
 carpinicolella, P. In hornbeam leaves.
 quercifoliella, P. In oak leaves.
 Messaniella In the leaves of evergreen oaks (young).
 Heegeriella, P. }
 Cramerella, P. } In oak leaves.
 tenella, P. In hornbeam leaves.
 SCABIOSELLA . In leaves of *Scabiosa columbaria* (young).
Nepticula aurella In bramble leaves.

MARCH.

- Solenobia inconspicuella* † . . . On palings, trunks of trees, &c.
Euplocamus Boleti † In fungi.
Tinea parasitella † In fungi, decayed wood, &c.
 biselliella On hair, feathers, &c.
Lampronia prælatella In cases among wild strawberry.
Incurvaria muscalcella, P. . . . }
 pectinca, P. . . . } In cases, among dead leaves.
 Oehlmanniella † }

Appearing in the Larva or Pupa state—MARCH.

- Adela Degeerella* † In cases, among *Anemone nemorosa* and other low plants.
- Depressaria assimilella* On broom, between united twigs.
- Gelechia rufescens* In rolled up grass (young).
- TRICOLORELLA In the heads of *Stellaria holostea*.
- cerealella † In grains of barley.
- subocellea In cases, on heads of *Origanum vulgare*.
- Parasia Lappella* In the seeds of *Arctium Lappa*.
- Dasycera sulphurella* In old posts, decayed wood, &c.
- Æcophora unitella* † In decayed wood.
- pseudospretella } Among seeds, &c.
- Endrosis fenestrella* }
- Argyresthia Goedartella* } In the young shoots of birch trees, and also
- Brockecella } under the bark.

GRACILARIA

- AUROGUTTELLA, P. In "cigars," on plants of *Hypericum*.
- Colcophora lineolea*, e. On *Ballota nigra* and *Stachys sylvatica*.
- cæspititiella On heads of rushes.
- ALBITARSELLA On *Glechoma hederacea* in sheltered places.
- Laverna Staintoni*, e. Mining the leaves of *Helianthemum vulgare*.
- ELACHISTA MEGERLELLA In leaves of *Melica uniflora*? or *Brachypodium sylvaticum*?
- Lithoeolletis Roboris*, P. }
- hortella, P. } In oak leaves.
- Amyotella, P. }
- Lantanella In leaves of *Viburnum lantana*.
- lautella, P. In oak leaves.
- carpinicolella, P. In hornbeam leaves.
- quercifoliella, P. In oak leaves.
- Messaniella In the leaves of evergreen oaks (young).
- Heegeriella, P. }
- Cramerella, P. } In oak leaves.
- tenella, P. In hornbeam leaves.
- SCABIOSELLA In the leaves *Scabiosa columbaria* (young).
- Cemiostoma spartifoliella* Beneath the bark of broom.
- Nepticula aurella* In bramble leaves.

APRIL.

- Talæporia* }
- pseudo-bombycella } On palings.
- Xysmatodoma melanella* }
- Ochsenheimeria Birdella* In stems of *Dactylis glomerata*, near the root.
- Tinea tapetzella* † On linings of carriages.
- parasitella, P. In fungi or decayed wood.
- fuscipunetella † On seeds, &c.
- pellionella On clothes, furs, &c.
- biselliella On hair, feathers, &c.

Appearing in the Larva or Pupa state—APRIL.

- Lampronia prælatella* In cases among wild strawberry.
Rubiella † In the shoots of raspberry bushes.
Incurvaria muscalella, P. .. In cases among dead leaves.
capitella..... In the pith of young shoots of currant bushes.
Adela Degcerella † In cases among *Anemone nemorosa* and other low plants.
Prays Curtiscllus..... In the shoots of ash trees.
Plutella porrectella On *Hesperis matronalis*.
Depressaria assimilella On broom, between united twigs.
Gelechia rufescens In rolled up grass leaves.
mulinella In the flowers of furze bushes.
diffinis † In a burrow near the root of *Rumex acetosella*.
TRICOLORELLA .. In the shoots of *Stellaria holostea*.
FRATERNELLA In the shoots of *Stellaria uliginosa* and *Cerastium vulgatum*.
Anthyllidella..... Mining the leaves of *Anthyllis vulneraria* and other papilionaceous plants.
cercalcella † In grains of barley.
Parasia Lappella..... In the seeds of *Arctium Lappa*.
Nothris Verbascella On *Verbascum pulverulentum*.
Cecophora unitella †..... In decayed wood.
Endrosis fencstrella Among seeds, &c.
Butalis Chenopodiella † On *Chenopodium* and *Atriplex* under a loose web.
Glyphipteryx equitella, e. † .. In the shoots of *Sedum acre*.
Argyresthia Goedartella .. } In the young shoots of birch trees, and also
Brockcella .. } under the bark.
Gracilaria
tringipennella In leaves of *Plantago lanceolata*.
AUROGUTTELLA, P. In "cigars" on plants of *Hypericum*.
Ononidis, e. † In leaves of *Ononis spinosa*, *Genista tinctoria*? &c.

COLEOPHORA

- ALCYONIPENNELLA On leaves of *Centaurea nigra*.
paripennella, P. On palings, trunks of trees, &c.
discordella On *Lotus corniculatus*.
Onosmella..... On *Echium vulgare*.
lineolca On *Ballota nigra* and *Stachys sylvatica*.
cæspititiella On heads of rushes.
Laricella On the leaves of larch trees.
gryphipennella On roses.
viminctella On willows and osiers.
Laverna Staintoni In the leaves of *Helianthemum vulgare*.
Elachista nigrella In the leaves of *Poa trivialis*?
SUBNIGRELLA .. In the leaves of *Bromus erectus*.
MEGERLELLA .. In the leaves of *Melica uniflora*? or *Brachypodium sylvaticum*?

Appearing in the Larva or Pupa state—APRIL.*Elaclista rufoinerea*, P. On various plants amongst grass.CYGNIPENNELLA .In the leaves of *Dactylis glomerata*, near the top.*Lithocolletis Messaniella* In leaves of evergreen oaks.

TRIFASCIELLA.. In honeysuckle leaves.

SCABIOSELLA .. In leaves of *Scabiosa columbaria*.*Cemiosstoma spartifoliella* Beneath the bark of broom.*Neptieula aurella*..... In bramble leaves.**MAY.***Talæporia**pseudo-bombycella* } On palings.*Xysmatodoma melanella* .. }*Oeksenheimeria Birdella* In stems of *Dactylis glomerata*, near the root.*Tinea tapetzella* † On linings of carriages.*pellionella* On clothes, furs, &c.*biselliella* On hair, feathers, &c.*Lampronia quadripunctella* † .On rose bushes. Where?*prælatella*, P. In cases among wild strawberry.*Rubiella* † In the shoots of raspberry bushes.*Incurvaria pectinea*, e. † Mining the leaves of birches (young).*Hyponomeuta Padellus*, e. .. On sloe, hawthorn, apple, &c.*Aesylia pusiella* † On *Lithospermum* and *Pulmonaria*.*Prays Curtisellus*, b. In shoots of ash trees.*Cerostoma sequella* † On limes and willows.*vittella* † On honeysuckle, elm and beech.*radiatella*, m. † .. On oaks.*seabrella* † On apple trees.*nemorella* † On honeysuckle on the bark.*Xylostella* On honeysuckle.*Orthotælia Sparganella* Burrowing in the leaves of *Sparganium*.*Phibalocera Quercana* Under leaves of pear, oak, beech, &c. beneath a transparent web.*Depressaria atomella*, e. On broom and *Genista tinctoria*.*Hypericella*, e. ... In the heads of *Hypericum*.*conterminella*, m. In the shoots of willows.*Weirella*, e. On the leaves of *Chærophyllum sylvestre*.*Geleehia rufescens* In rolled up grass leaves.*Populella* On poplars, willows and birch.*lentiginosella*, e. ... In the shoots of *Genista tinctoria*.*mulinella* In the flowers of furze and broom.*sororeulella*, e. † .. On willows.*Artemisiella* † In the terminal shoots of *Artemisia campestris*.*rhombella*, m. † On apple trees.*vulgella* † In the shoots of hawthorn.*fugitivella* † On nut bushes, maple and elm.MACULEA In the shoots and seeds of *Stellaria holostea*.

*Appearing in the Larva or Pupa state—MAY.*GELECHIA TRICOLORELLA, b. In the shoots of *Stellaria holostea*.FRATERNELLA, b. . . . In the shoots of *Stellaria uliginosa* and *Cerastium vulgatum*.*Atriplicella*, e. . . . In the shoots of *Atriplex*.*obsoletella* † In the stems of *Atriplex* and *Chenopodium*.*sequax*, e. In the shoots of *Helianthemum vulgare*.*leucatella*, m. † Between united apple (and hawthorn?) leaves.*nanella* On pear blossoms.*Mouffetella* On honeysuckle.*dodecella* † In the shoots of fir trees.*ligulella* † Between united leaves of *Lotus corniculatus*.*vorticella* † On *Genista tinctoria*.*Coronillella* † Between united leaves of *Coronilla varia*.*Anarsia Spartiella*, e. † In the shoots of broom.*Nothris Verbascella* On *Verbascum pulverulentum*.*Æcophora unitella* † In decayed wood.*Endrosis fenestrella* On seeds, &c.*Batalis Chenopodiella* † On *Chenopodium* and *Atriplex*, under a loose web.*Glyphipteryx equitella* † In the shoots of *Scdum acre*.*Argyresthia ephippella*, b. . . . In the shoots of cherry.*nitidella*, b. In the shoots of hawthorn.*albistria*, b. . . } In the shoots of sloe.*mendica*, b. . . }*Goedartella*, P. } Under the bark of birch trees.*Brockeella*, P. }*Gracilaria elongella* † In rolled-up alder leaves.*tringipennella*, P. In leaves of *Plantago lanceolata*.*Ononidis* † In leaves of *Ononis spinosa*, *Genista tinctoria*? &c.*Coriscium Brongniardellum* † In oak leaves.

COLEOPHORA

ALCYONIPENNELLA On leaves of *Centaurea nigra*.*paripennella*, P. b. On palings and trunks of trees.*Lixella* † On leaves of *Holcus mollis*.*conspicua* † On leaves of *Centaurea scabiosa*.*pyrrhulipennella* On heather.*anatipennella* On sloe, birch and oak.*palliatella* † On oak, birch, nut, willow and sloe.*currucipennella* † On oaks.*discordella* On *Lotus corniculatus*.*Onosmella* On *Echium vulgare*.*trogloidyntella* † On *Eupatoria cannabinum* and *Inula dysenterica*.*lineolea* On *Ballota nigra* and *Stachys sylvatica*.*cæspititiella*, b. On old heads of rushes.*hemerobiella* † On pear trees.

*Appearing in the Larva or Pupa state—MAY.**Colcophora**nigricella*, e. On hawthorn, apple, pear, sloe and birch.*fuscadinella*, e. On elm, alder, hornbeam and nut.*gryphipennella*, b. On roses.*viminetella* On willows and osiers.SOLITARIELLA On *Stellaria holostea*.*lutipennella* On oaks and birches.*badiipennella* † On elms and ash trees.*Batrachedra præangusta* † . . On poplars and willows, between united leaves.*Chauliodus Illigerellus* † . . . Between united leaves of *Ægopodium podagraria*.*Laverna ochraceella* In the leaves of *Epilobium hirsutum*.*Chrysoclista Linneella* Under the bark of lime trees.*Schrankella* † . . In the leaves of *Epilobium alsinifolium*.*Elachista albifrontella*, b. † . . In the leaves of *Aira cæspitosa*.*atricomella*, b. In the leaves of *Dactylis glomerata*.*luticomella*, b. In the leaves of *Dactylis glomerata*. R. F. L.SUBNIGRELLA, b. In the leaves of *Bromus erectus*.*zonariella* † In the leaves of one of the grasses.CYGNIPENNELLA, b. . . . In the leaves of *Dactylis glomerata*, near the top.*Cemistoma spartifoliella*, P. . Outside the bark of broom, beneath a bud, in a white cocoon.**JUNE.***Exapate gelatella* † In decayed wood ? or between united hawthorn leaves ?*Chimabacche Phryganella*, e. † On oaks.*Tinea corticella* † In fungi or hornbeam.*pellionella* On furs, clothes, &c.*biscllicella* On hair, feathers, &c.*Incurvaria pectinea*, b. † . . . Descending from birch leaves, in cases (young).*Swammerdamia Pyrella*, e. . . On apple, hawthorn, &c.*Scythropia Cratægella*, m. † . On hawthorn, gregariously.*Hyponomeuta**vigintipunctatus*, e. † On *Sedum telephium*.*plumbellus* } On spindle.*irrorellus* † }*Padellus* On sloe, hawthorn, apple, &c.*Evonymellus* On spindle.*Padi* † On bird-cherry (*Prunus padus*).*Plutella Cruciferarum* On cabbages and other cruciferous plants.*porrectella* On *Hesperis matronalis*.*Cerostoma sequella*, b. † . . . On limes and willows.*sylvella* † On oaks.*asperella*, † On apple trees.

Appearing in the Larva or Pupa state—JUNE.

- Theristis caudella*, e. † On spindle.
- Orthotelia Sparganella* Burrowing in the leaves and stems of *Sparganium*.
- Phibalocera Quercana* Under the leaves of pear, oak and beech, beneath a transparent web.
- Depressaria costosa* On furze and broom.
- liturella* In rolled-up leaves of *Centaurea nigra*.
- atomella* On broom and *Genista tinctoria*.
- arenella*, e. Under turned-down leaves of *Centaurea nigra*.
- subpropinquella*, † Under the leaves of thistles.
- Hypericella*, b. . . In the tops of *Hypericum*.
- conterminella*, b. . In the shoots of willows.
- Angelicella*, b. † . On *Angelica sylvestris* and willow ?
- applanata* On *Chærophyllum sylvestre* and other *Umbelliferae*.
- Weirella*, b. . . . On *Chærophyllum sylvestre*.
- Heraciana* In the umbels and stems of *Heracleum sphondylium*.
- Psoricoptera gibbosella* † On willows.
- Gelechia Populella*, b. On poplars, willows and birch.
- temerella*, b. † On willows.
- lentiginosella*, b. . . . In the shoots of *Genista tinctoria*.
- sororculella*, b. † . . . On willows.
- rhombella*, b. † On apple-trees.
- MACULEA In the shoots and seeds of *Stellaria holostea*.
- Atriplicella* In the shoots of *Atriplex*.
- obsoletella* † In the stems of *Atriplex* and *Chenopodium*.
- sequax*, b. In the shoots of *Helianthemum vulgare*.
- nanella*, P. On the bark of pear trees.
- gemmella* (?) † (Mining in oak leaves ?)
- næviferella* } Mining the leaves of *Atriplex* and *Chenopodium*.
- Hermannella* }
- ericinella* † In shoots of heath.
- Anarsia Spartiella*, b. † In shoots of broom.
- Genistæ*, b. † In shoots of *Genista tinctoria*.
- Ypsolophus marginellus* On juniper bushes.
- Nothris Verbascella*, P. On *Verbascum pulverulentum*.
- Endrosis fenestrella* On seeds, &c.
- Butalis Chenopodiella* † On *Chenopodium* and *Atriplex*, under a loose web.
- Acrolepia granitella*, b. In the leaves of *Inula dysenterica*.
- Röslerstammia Erxlebellæ* † . . Between united leaves of heather ?
- Zelleria heparicella* † On ash trees.
- Gracilariu tringipennella*, e. . In the leaves of *Plantago lanceolata*.
- Syringella* In leaves of lilac, privet and ash.
- omissella*, e. In leaves of *Artemisia vulgaris*.
- AUROGUTTELLA . In cones of *Hypericum*.

*Appearing in the Larva or Pupa state—JUNE.**Coleophora*

Wockecella, b. † } On *Genista tinctoria*.
vibicella † }

conspicuellæ, b. † On the leaves of *Centaurea scabiosa*.

Onosmella, b. On *Echium vulgare*.

fuscedinella, b. On elm, alder, hornbeam and nut.

SOLITARIELLA, b. On *Stellaria holostea*.

Chauliodus Chærophyllellus .. On *Chærophylum sylvestre* and other *Umbelliferae*.

Laverna ochraceella, P. In the leaves *Epilobium hirsutum*.

Chrysoclista Linnæella Under the bark of lime trees.

Heliodines Roesella † On *Chenopodium bonns Henricus*, under a web, gregariously.

Anybia langiella † In the leaves of *Epilobium hirsutum*.

Phyllocnistis suffusella † In leaves of poplar.

saligna † In leaves of willow.

Bucculatrix

Hippocastanella, e. In ? and on the leaves of lime, horse-chestnut, birch ? and alder.

Nepticula aurella In bramble leaves.

JULY.

Exapate gelatella † In decayed wood ? or between united leaves of hawthorn.

Dasystoma Salicella † On alders, willows, birches and oaks.

Chimabacche

Phryganella, b. † On oaks.

Tinea corticella, b. † In fungi, on hornbeam.

pellionella On furs, clothes, &c.

biselliella On hair, feathers, &c.

Incurvaria pectinea In cases, among fallen birch leaves (young).

Swammerdamia Pyrella, b. .. On apple, hawthorn, &c.

Scythropia Cratægella, b. † . On hawthorn, gregariously.

Hyponomeuta

vigintipunctatus, b. † On *Sedum Telephium*.

Anesychia bipunctella, b. † .. On *Echium vulgare*.

Plutella Cruciferarum On cabbages and other cruciferous plants.

Theristis caudella † On spindle.

Depressaria arenella Under turned-down leaves of *Centaurea nigra*.

propinquella Under thistles.

Alstrœmeriana † In the umbels of *Conium maculatum*.

ocellana On willows.

ciliella † On the leaves and umbels of *Angelica sylvestris*.

rotundella † (In the flowers of *Echium vulgare* ?)

depressella † Among the seeds of carrots and parsnips.

Pimpinellæ † . . . On *Pimpinella saxifraga*.

Appearing in the Larva or Pupa state — JULY.

Depressaria emeritella † On tansy.

Chærophylli In the umbels of *Chærophyllum temulentum*.

nervosa † In the umbels of *Cicuta virosa*, or in the stems of *Phellandrium aquaticum*.

Heracliana In the umbels and stems of *Heracleum sphondylium*.

Gelechia acuminatella In leaves of thistles.

costella, e. In leaves of *Solanum dulcamara*.

atriplicella, b. In the shoots of *Atriplex*.

obsoletella † In the stems of *Chenopodium* and *Atriplex*.

Anthyllidella Mining the leaves of *Anthyllis vulneraria* and other papilionaceous plants.

Endrosis fenestrella On seeds, &c.

Butalis Chenopodiella † On *Chenopodium* and *Atriplex*, under a loose web.

Acrolepia pygmæana In the leaves of *Solanum dulcamara*.

Zelleria hepariella † On ash trees.

GRACILARIA SWEDERELLA On oak leaves, in cones.

tringipennella . In leaves of *Plantago lanceolata*.

omissella, b. . . In leaves of *Artemisia vulgaris*.

Ornix Avellanella In nut leaves.

Anglicella In leaves of hawthorn? and sloe.

Betulæ In birch leaves.

torquillella In sloe leaves.

guttea † In apple leaves.

Laverna Staintoni Mining in the leaves of *Helianthemum vulgare*.

Epilobiella In the tops of *Epilobium hirsutum*.

Anybia langiella, b. † In the leaves of *Epilobium hirsutum*.

Elachista nigrella In the leaves of *Poa trivialis*?

SUBNIGRELLA In the leaves of *Bromus erectus*.

Tischeria marginca In bramble leaves.

Lithocolletis

Roboris † }
hortella † } In oak leaves.

Amyotella † }

Lantanella In leaves of *Viburnum lantana*.

lautella † In oak leaves.

pomifoliella In leaves of hawthorn and apple (underside).

Coryli In nut leaves (upperside).

spinicolella In sloe leaves.

Faginella In beech leaves.

salicicolella In sallow leaves.

carpinicolella In hornbeam leaves (upperside).

ulmifoliella In birch leaves.

Spinolella † In sallow leaves.

quercifoliella In oak leaves.

Messaniella In the leaves of evergreen and common oaks.

*Appearing in the Larva or Pupa state—JULY.**Lithocolletis**corylifoliella* In hawthorn leaves (underside).*viminiella* In sallow leaves.*alnifoliella* In alder leaves (underside).*Heegeriella* † } In oak leaves.*Cramerella* }*tenella* In hornbeam leaves (underside).*sylvella* In maple leaves.

EMBERIZÆPENNELLA . . . In honeysuckle leaves.

Nicellii † In nut leaves (underside).*Stettinensis* † In alder leaves (upperside).*Klemannella* † In alder leaves (underside).*Schreberella* In elm leaves.*tristrigella* † In elm and hawthorn? leaves.

TRIFASCIELLA In honeysuckle leaves.

SCABIOSELLA In the radical leaves of *Scabiosa Columbaria*.*Lyonetia Clerckella*, c. † In apple leaves.*Cemiosoma Laburnella* In laburnum leaves.*Bucculatrix Cratægi* In and on hawthorn leaves.*Nepticula atricapitella* . . . } In oak leaves.*ruficapitella* . . . }*anomalella* In rose leaves.*pygmælla* } In hawthorn leaves.*Oxyacanthella* . . }*Catharticella* In leaves of *Rhamnus catharticus*.*flostactella* In nut and hornbeam leaves.*Salicis* In sallow leaves.*microtheriella* In nut and hornbeam leaves.*ignobilella* In hawthorn leaves.*Acetosæ* † In leaves of sorrel.*plagicolella* In sloe leaves.*Tityrella* In beech leaves.*Malella* In apple leaves.*marginicollella* . . . In elm leaves.*aurella* In bramble leaves.**AUGUST.***Dasystoma Salicella* † On alders, sallows, birches and oaks.*Tinea biselliella* On hair, feathers, &c.*Incurvaria pectinea* In cases, among fallen birch leaves.*Semioscopis**Steinkellneriana*, e. † On hawthorn, (sloe?) and mountain ash.*Enicostoma lobella* Under turned-down sloe leaves.*Depressaria propinquella* . . . Under thistle leaves.*depressella* † Among the seeds of carrots and parsnips.*Pimpinellæ*, b. † . On *Pimpinella saxifraga*.*Gelechia costella*, b. In the leaves, stems and fruit of *Solanum dulcamara*.

Appearing in the Larva or Pupa state—AUGUST.

Gelechia instabilella † On *Salicornia herbacea* and *Chenopodium maritimum*.

obsoletella, b. † On the stems of *Atriplex* and *Chenopodium*.

triparella Between united oak leaves.

subocellea, e. In cases, on the flowers of *Origanum vulgare* (young).

Nothris Verbascella On *Verbascum pulverulentum*.

Æcophora flavimaculella † On the seeds of *Angelica sylvestris*.

Endrosis fenestrella On seeds, &c.

Butalis Chenopodiella † On *Chenopodium* and *Atriplex*, under a loose web.

Acrolepia pygmæana In leaves of *Solanum dulcamara*.

GRACILARIA

STIGMATELLA In cones, on leaves of willows, sallows and poplars.

elongella † In rolled-up alder leaves.

phasianipennella † In cones, on the underside of the leaves of *Polygonum hydropiper*.

Coriseium Brongniardellum † In oak leaves.

cuculipennellum † In rolled-up leaves of privet.

Ornix Scoticella, e. † In mountain ash leaves.

guttea In apple leaves.

BEDELLIA

SOMNULENTELLA, b. In leaves of *Convolvulus arvensis*.

Chauliodus

Chærophyllellus, e. On *Torilus*, *Sison*, *Heracleum* and other *Umbelliferae*.

Elachista cerusella, b. † In the leaves of *Arundo phragmites*.

Phyllocnistis suffusella † In the leaves of poplars.

saligna † In the leaves of willows.

Cemiosoma seitella In the leaves of hawthorn, apple, pear and mountain ash.

Bucculatrix

Cratægi In and on the leaves of hawthorn.

Boyerella † In and on the leaves of elm.

Frangutella In and on the leaves of *Rhamnus Frangula*.

Hippocastanella † In ? and on the leaves of lime, horse-chestnut, birch ? and alder ?

SEPTEMBER.

Dasystoma salicella † On alders, sallows, birches and oaks.

Chimabacche Fagella On oaks, beeches, birches, &c.

Tinea Granella, e. In granaries, among corn.

biselliella On hair, feathers, &c.

Lampronia prælatella In cases, under the leaves of wild-strawberry.

Ineurvaria muscalcella }
pectinea } In cases, among fallen leaves.

Appearing in the Larva or Pupa state—SEPTEMBER.*Swammerdamia*

- cæsiella* † On hawthorn ?
griseo-capitella † On birches, gregariously (Torwood).
Pyrrella On hawthorn, apple, cherry and plum.

Hyponomeuta

- vigintipunctatus*, e. † On *Sedum telephium*.
Auesychia decenuguttella, m. † On *Lithospermum officinale*.
Plutella Cruciferarum On cabbages and other cruciferous plants.

Semioscopis

- Steinkellueriana* † On hawthorn (sloe ?) and mountain ash.
Euicostoma lobella Under turned-down leaves of sloe.
Gelechia rufescens In rolled-up grass leaves (young).
Malvella In the seeds of holyhocks.
acuminatella In the leaves of thistles.
proximella Between birch leaves.
notatella Between sallow leaves.
scriptella In doubled-over maple leaves.
triparella Between united oak leaves.
Brizella † In the heads of *Statice aruaria*.
subocellea In cases, on the flowers of *Origaanum* (young).

Ypsolophus fasciellus † On sloe.*Nothris Verbascella* On *Verbascum pulverulentum*.*Ecophora flavimaculella* † In the seeds of *Angelica sylvestris*.*Endrosis fenestrella* On seeds, &c.*Acrolepia pygmaæana* In the leaves of *Solanum dulcamara*.

GRACILARIA

SWEDERELLA In cones, on ash leaves

STIGMATELLA In cones, on leaves of willow, sallow and poplar.

Syringella In leaves of lilac, privet and ash.*omissella* In leaves of *Artemisia vulgaris*.AUROGUTTELLA In cones, on *Hypericum*.*Ornix Avellanella* In nut leaves.*Anglicella* In leaves of hawthorn ? and sloe.*Betula* In birch leaves.*torquillella* In sloe leaves.*Scoticella* † In mountain ash leaves.*Coleophora paripennella* On leaves of sloe, hawthorn, nut, birch, &c.*cæspititiella* On seeds of rushes (young).*annulatella* On seeds of *Atriplex*.*argentula* † On seeds of *Achillea millefolium*.*Laricella* On leaves of larches (young).*gryphipennaella* On roses (young).*viminetella* On sallows and osiers (young).

BEDELLIA

SOMNULENTELLA In leaves of *Convolvulus arvensis*.*Cosmopteryx Drurella* In hop leaves.

Appearing in the Larva or Pupa state—SEPTEMBER.

Chauliodus Chærophyllellus..On *Torilus*, *Sison*, *Heracleum* and other *Umbelliferae*.

Tischeria complanellaIn oak leaves.

Lithocolletis

pomifoliellaIn leaves of hawthorn and apple (underside).

CoryliIn nut leaves (upperside).

spinicolellaIn sloe leaves.

FaginellaIn beech leaves.

salicicolellaIn sallow leaves.

viminetorumIn osier leaves.

carpinicolellaIn hornbeam leaves (upperside).

ulmifoliellaIn birch leaves.

Spinolella †In sallow leaves.

quercifoliellaIn oak leaves.

viminiellaIn sallow leaves.

alnifoliellaIn alder leaves (underside).

tenellaIn hornbeam leaves (underside).

sylvella.....In maple leaves.

EMBERIZÆPENNELLA....In honeysuckle leaves.

FrölichellaIn alder leaves (underside).

Nicellii †In nut leaves (underside).

Stettinensis †In alder leaves (upperside).

Klemannella †In alder leaves (underside).

SchreberellaIn elm leaves.

tristrigella †.....In elm and hawthorn? leaves.

TRIFASCIELLAIn honeysuckle leaves.

Lyonetia Clerckella †In apple leaves.

Philloenistis saligna, b. †....In willow leaves.

Cemiosstoma LaburnellaIn laburnum leaves.

scitella, b.In leaves of hawthorn, apple, pear and mountain-ash.

Bucculatrix Ulmella †.....In? and on oak leaves.

FrangutellaIn and on leaves of *Rhamnus Frangula*.

Nepticula atricapitella, e. } In oak leaves.

ruficapitella, e... }

Septembrella, m. ..In leaves of *Hypericum*.

plagieolella, m. ..In sloe leaves.

gratiosella, m. ..In hawthorn leaves.

marginicolella, e...In elm leaves.

aurella.....In bramble leaves.

OCTOBER.

Chimabacche FagellaOn oaks, beeches, birches, &c.

Euploeamus Boleti †In fungi (young).

Tinea arcuatella † } In fungi or decayed wood.

parasitella † }

GranellaIn granaries, among corn.

Appearing in the Larva or Pupa state—OCTOBER.

Lampronia praelatella In cases, under the leaves of wild strawberry.

Incurvaria muscalcella }
pectinea } In cases, among fallen leaves.

Hyponomeuta

vigintipunctatus, b. † On *Sedum telephium*.

Ancsychia bipunctella, b. † .. On *Echium vulgare*.

decemguttella, b. † On *Lithospermum officinale*.

Gelechia rufescens In rolled-up grass leaves (young).

Malvella In seeds of hollyhocks.

næviferella } Mining the leaves of *Atriplex* and *Chenopo-*
Hermannella } *dium*.

Brizella † In the heads of *Statice armeria*.

subocellea In cases, on flowers of *Origanum vulgare*.

Parasia Lappella In the seeds of *Arctium Lappa*.

Carlinella Beneath the seeds of *Carlina vulgaris*.

Dasyccra sulphurella In old posts, decayed wood, &c.

Œcophora similella † Under the bark of fir trees.

Eudrosis fenestrella On seeds, &c.

GRACILARIA

SWEDERELLA In cones, on oak leaves.

omissella, b. In the leaves of *Artemisia vulgaris*.

AUROGUTTELLA In cones, on leaves of *Hypericum*.

Ornix Avellanella In nut leaves.

Betulae In birch leaves.

Coleophora paripennella On leaves of sloe, hawthorn, nut, birch, &c.

discordella On *Lotus corniculatus* (young).

cæspititiella On heads of rushes (young).

annulatella On seeds of *Atriplex*.

argentula † On seeds of *Achillea millefolium*.

Laricella On leaves of larches (young).

gryphipennella .. On roses (young).

viminetella On willows and osiers (young).

Tischeria complanella In oak leaves.

marginea In bramble leaves.

Lithocolletis

Roboris † }
hortella † } In oak leaves.

Amyotella † }

Lantanella In leaves of *Viburnum lantana*.

lantella † In oak leaves.

pomifoliella In leaves of hawthorn and apple (underside).

Coryli In nut leaves (upperside).

spinicolella In sloe leaves.

Faginella In beech leaves.

salicicolella In willow leaves.

viminetorum In osier leaves.

carpinicolella In hornbeam leaves (upperside).

Tinea parasitella † In fungi, or decayed wood.
Lampronia praelatella In cases among wild strawberry.
Ineurvaria muscalella }
pectinea } In cases among fallen leaves.
Geleehia rufescens In rolled-up grass leaves (young).
bifraetella In the seeds of *Inula dysenterica* and *Conyza squarrosa*.
eerealella † In grains of barley.
inopella † In the heads of *Inula dysenterica*.
subocellea In cases on heads of *Origanum*.
Parasia Lappella In the seeds of *Arctium Lappa*.
Carlinella Below the seeds of *Carlina vulgaris*.
Dasyeera sulphurella In old posts, decayed wood, &c.
Endrosis fenestrella On seeds, &c.

AUROGUTTELLA, P. In "cigars," on plants of *Hypericum*.
Coleophora
cæspititiella On the heads of rushes.
ALBITARSELLA On *Glechoma hederacea*, in sheltered places.
SOLITARIELLA On *Stellaria holostea* (young).
Tiseheria marginæa In bramble leaves.
Lithocolletis
Roboris, P. }
hortella, P. } In oak leaves.
Amyotella, P. }
Lantanella In leaves of *Viburnum lantana*.
lautella, P. In oak leaves.
carpinicolella, P. In hornbeam leaves.
quercifoliella, P. In oak leaves.
Messaniella In leaves of evergreen oaks (young).
alnifoliella, P. In alder leaves (underside).
Heegeriella, P. }
Cramerella, P. } In oak leaves.
tenella, P. In hornbeam leaves.
Stettinensis, P. In alder leaves (upperside).
Nepticula Septembrella In leaves of *Hypericum*.
subbimaculella In oak leaves.
angulifasciella? In rose leaves.
aurella In bramble leaves.

Solenobia inconspicuellæ † .. On palings, trunks of trees, &c.
Euploeamus Boleti † In fungi.
Tinea parasitella † In fungi, or decayed wood.
Lampronia prælatella In cases among wild strawberry.
Incurvaria musealella }
pectinea } In cases among fallen leaves.
Gelechia rufescens In rolled-up grass leaves (young).

Appearing in the Larva or Pupa state—DECEMBER.

- Gelechia affinis* In moss on walls.
bifractella In the seeds of *Inula dysenterica* and *Conyza squarrosa*.
cerealella † In grains of barley.
inopella † In the heads of *Inula dysenterica*.
subocellea In cases on heads of *Origanum*.
Parasia Lappella In the seeds of *Arctium Lappa*.
Carlinella Below the seeds of *Carlina vulgaris*.
Dasycera sulphurella In old posts, decayed wood, &c.
Endrosis fenestrella On seeds, &c.
Gracilaria auroguttella, P. In "cigars," on plants of *Hypericum*.
Coleophora
cæspititiella On the heads of rushes.
ALBITARSELLA On *Glechoma hederacea*, in sheltered places.
Tischeria marginea In bramble leaves.
Lithocolletis
Roboris, P. }
hortella, P. } In oak leaves.
Amyotella, P. }
Lantanella In leaves of *Viburnum lantana*.
lautella, P. In oak leaves.
carpinicolella, P. In hornbeam leaves.
quercifoliella, P. In oak leaves.
Messaniella In the leaves of evergreen oaks (young).
Heegeriella, P. }
Cramerella, P. } In oak leaves.
tenella, P. In hornbeam leaves.
Nepticula aurella In bramble leaves.

HOW TO REAR MICRO-LEPIDOPTERA FROM THE LARVÆ.

HOWEVER difficult an affair this may appear to the uninitiated, it is found in practice a matter of extreme simplicity, the main essential being to keep the food fresh as long as possible; for this purpose Mr. Gregson, of Liverpool, recommended me to use ordinary jam-pots, simply covered with pieces of plate-glass; and having now had several years experience of these simple breeding-cages, I can confidently recommend them to my readers. To ensure a tighter fit it is desirable that the top of the jam-pot be ground, our object now being to exclude the air; in these tight-fitting cages the food may be kept tolerably fresh for a week, and the collector will find that during the busy summer season he will rarely have to give a larva fresh food above two, or, at the most, three times, before it will have assumed the pupa state. It is of course desirable, as far as practicable, to keep each kind in a separate breeding cage, or, at any rate, only to have one kind of food in each cage, in order that when the perfect insect appears there may be no difficulty in ascertaining on what plant it had fed during the larva state.

The convenience of the glass is, that if a moth has hatched, it can be at once seen, without the trouble of opening every individual cage, in order to see if there is one out.

For breeding insects on a large scale a more capacious cage is requisite; a confectioner's glass jar will be found extremely useful.

Out of the great number of the larvæ of *Coleophora solitariella* which I collected last summer, I only reared about half-a-dozen specimens of the perfect insect; the remainder died, though I was at a good deal of pains to bring them to maturity. Of the few which I sent to Mr. Doubleday each produced a moth. This difference in the result must have been caused by the different treatment the larvæ experienced. Mine were kept in *close* glass jars, the excessive moisture arising from the plant frequently streaming down the sides of the jar; Mr. Doubleday kept his in glass *cylinders*, one end of the cylinder being sunk into some white sand placed in a flower-

pot (the food being kept fresh by being placed with the stem in the sand, which was kept moist), and the upper end of the cylinder being covered with gauze. Many *Coleophora* larvæ do not thrive in tight vessels; probably the excess of moisture produces agues and low fevers among them, analogous to the human ailments caused by living on undrained marsh land.

These cylinders will probably also be found useful for those larvæ which remain unchanged throughout the winter, also for larvæ of *Elachista*, *Ochsenheimeria*, and other grass-feeding species.

As the pupæ of the minute leaf-mining species are apt to dry up, it does not do to keep them in pasteboard or chip-boxes; they, as well as the larvæ, require to be kept in air-tight vessels, but a jam-pot is an inconvenient form for holding any number of these small pupæ, with the portions of the leaves in which they are (it rarely answers to take them entirely out of the leaves; the best plan is to cut out the mined portion of the leaf with a pair of scissors, and to keep it unopened). I have therefore adopted, for this purpose, a glass tube (a lamp-glass or gas-chimney), corked at each end—in which, if a moth makes its escape, it is easily observed without uncorking the tube; since if it be concealed among the fragments of leaves, the simple turning the tube over once or twice, the moth will become dislodged and settle on the glass.

HOW TO KILL MICRO-LEPIDOPTERA.

Gather one hundred laurel leaves, the juiciest you can find (yet they must on no account be wet when gathered); take two or three at a time, and hammer them till they are well bruised; then, with a pair of scissors, cut them into small pieces—as small as you like, and place them in an air-tight vessel, so secured by some contrivance that the pieces shall not roll about loose. On returning from a collecting expedition, place the insects, boxes and all, in the vessel along with the laurel leaves; in five minutes they will all be dead, and can be set, when convenient, either the next day or the next week, as the moisture in the laurel leaves will prevent the insects from becoming stiff.

HOW TO SET MICRO-LEPIDOPTERA.

So much has been said and written upon this subject, that it is almost superfluous to add anything here; but as that might disappoint any beginners who were searching for information on that point, I am induced to say a few words on the subject.

The first object is to pin* the insect. On this point Mr. Douglas has given some very useful hints in the *Zoologist* for 1851 (p. 2347), but having not yet learnt to manipulate with the pliers, I still make use of my thumb and finger in order to hold the pin; and if the insect is *very small* I hold it by its legs between the thumb and finger of the left hand, whilst I pierce it with the pin held between the thumb and finger of the right hand; if the insect is not very small I use a rough surface—as a piece of blotting-paper or piece of cloth—for it to lie upon and prevent its slipping about, and then cautiously insert the point of the pin in the middle of the thorax, as nearly as possible in a vertical direction. As soon as the pin is fairly through the insect, I remove it to a piece of soft cork, and, by pressing it in, push the insect as far up the pin as is required.

For setting the insects I find nothing answers as well as a piece of soft cork, papered with smooth paper, and with grooves cut to admit the bodies. The wings are placed in the required positions by the setting-needle, and are then retained in their places by a wedge-shaped thin paper brace, placed over them till a square brace of smooth card-board is placed over the ends of the wings. The pins used in the braces should be longer than the pin which transfixes the insect, so that they can be moved without any risk of damaging the specimen by pushing against the pin which goes through it. The insects, after being set out in this way, should be left on the setting-board from one to three days (according to the size of the insects and dryness of the weather) before the braces are removed.

* The proper pins for *Micro-Lepidoptera* are Nos. 19 & 20, of W. Gale, Crown Court, Cheapside. A good pin for the *Nepticulæ* is still a desideratum.

ENTOMOLOGICAL LOCALITIES.

A FEW notices of many of the localities resorted to by Entomologists in the pursuit of sport will perhaps be found useful by some, though I have been anticipated in most of the places here mentioned by Mr. Douglas's papers in the Zoologist—subjoined is a list of the localities in the neighbourhood of London I propose to introduce to the attention of my readers.

Beckenham Fence.	Hammersmith Marshes.
Birch Wood.	Hampstead Heath.
Black Park.	Hyde Park.
Box Hill.	Mickleham.
Charlton.	Richmond Park.
Darenth Wood.	Sanderstead.
Dartford Heath.	Stoat's-nest.
Dulwich Wood.	Wanstead.
Epping Forest.	Weybridge.
Greenwich Marshes.	Wickham.
Hainault Forest.	Wimbledon Common.
Ham Common.	

BECKENHAM FENCE.

To borrow from the guide books at watering-places, "this now favourite place of resort has only come into favourable notice within the last few years; its popularity is now on the increase, and last summer" it was frequently visited by those in search of *Lithocolletides* and *Nepticulæ*, for which it is so celebrated. Fences, or, in other words, wooden palings, radiate from Beckenham, as from a centre, along nearly all the roads: that on the left hand, or western side of the road from Beckenham towards Sydenham, is *the fence*. The shorter portion of it, though inconvenient for tall people, is very prolific. Here is the head-quarters of *N. marginicolella*, and indeed this is the only locality where it has been met with in the perfect state. On the left-hand side of the road, half-way between Beckenham and Southend, was a piece of fence extremely prolific in 1851; it was only a small portion of the fence that so abounded with

moths, apparently because behind that portion the wood had been felled, and there was consequently no shelter except on the fence, which, from the discoverer of its virtues, Mr. Preston, has received the name of *the Prestonian Fence*; here I have taken *Argyresthia glaucinella*, *Lithocolletis hortella*, *Nepticula argyropeza*, *apicella*, and *angulifasciella*. Another fence, which I have not personally visited, is on the right hand side of the road from Beckenham to West Wickham; here Mr. Wilkinson has met with *N. quinquella*.

BIRCH WOOD.

“ Giving to small things mighty names
A very artful dodge I call,
Since rifles, skittles, quoits and victuals,
Are termed En-to-mo-log-i-cal.”

Birch Wood Dinner, 1850.

When I say that the Entomological Club hold their annual festival at the Bull, at Birch Wood Corner, an incipient might conclude that it was a society of Entomologists who spent the day in collecting, terminating the evening with some jovial repast, to recruit nature for the exertions undergone. The above account of the day's doings, framed in poetie form by one of the company on the last occasion I was present, will serve to correct this idea. The Entomological Club dinner must, by no means, be confounded with the excursions of the Entomological Society; the latter are undertaken with the view of making a larger party of collectors than ordinarily would meet, and many a tyro, by joining one of these excursions, will receive more useful information by observing the manœuvres of older hands than he would obtain by learning this volume by heart. The dinner in this case is the adjunct to the excursion; in the former case the object of the day's outing is to obtain an appetite for the dinner, as Molière says:

“ Il faut vivre pour manger, et pas manger pour vivre.”

However, I digress. Birch Wood is a wood of considerable extent, and has been but little hunted since the *TINEINA* have been so much the fashion; it is situated on the direct Maidstone

road, about fourteen miles from London, and the Bull affords a convenient asylum for those who stop all night. It was here that Mr. Douglas took his unique *Solenobia Douglasii*, and here, in September, 1846, I met with the still rare *Gracilaria populetorum*.

BLACK PARK.

In Bucks, four miles north of West Drayton.

Never having been to this celebrated locality, I can say nothing of its capabilities, but I presume that if the *Macro-Lepidoptera* are so plentiful here, the *Micros* are not unrepresented.

BOX HILL.

The wealth and dignities of state,
The little things that men call great,
Lack always power to impart
Ought that can interest the heart.

The charms that mind delights to trace
Are those that glow in Nature's face ;
The only beauties that withstand
The touch of Time's destroying hand.

I love thee, Nature, as a child
Loves the dear mother that beguiled
Its many tedious hours of pain,
And soothed it into health again.

I love thee on the mountain wild,
The verdant valley, or the mild
Cool margin of some silv'ry stream,
Whose waters in the sunlight gleam.

I love at noon the twilight shade
The gently waving trees have made,—
To sit, and let my spirit roam,
And visit Nature in her home.

Or on the scented turf to lie
 And watch the meteor birds flit by ;
 The friends that from some other clime
 Have come to share our summer time.

And see the insects crawl, or fly,
 Like spirits to their native sky ;
 Th' embodied sense of joy they seem,
 When dancing in the solar beam.

Oh, 'tis a sense surpassing ease
 To feel the kiss o' the cooling breeze ;
 That, like a spirit of love, is sent
 From heav'n to earth with th' intent,

That it might with its gentle wing
 Refresh and fan each weary thing ;
 For if the meanest feel a pain,
 There's balm to give it health again.

It's whisp'ring now, thro' yonder grove,
 To every flower its tale of love ;
 Each, as it passes, looks more bright,
 And all are trembling with delight.

It woos the rose, whose fragrant breath
 Defies the mighty pow'r of death ;
 And wand'ring on thro' blooming fields,
 Receives the tribute each flow'r yields.

The Sun, that long on earth and ocean
 Has gaz'd with an intense devotion—
 To whom again earth has confess'd
 The glowing feelings of her breast—

Now, like a lover, when each sense
 Is satiate with joy intense,
 He gently sinks down to his rest,
 On downy clouds far in the west.

And Night being envious that the day
 Had held so long o'er earth its sway,
 Then hastens onward, and lets fall
 Her sable mantle over all :

While stars, her wakeful watchmen, keep
 Their vigils o'er a world asleep ;
 Till, struggling with the morn, their strife
 Awakes earth up to love and life.

Thus love rules all ; it is the heart
 Whence all the streams of life depart ;
 The never-failing fountain head
 From which all other springs are fed.

The universe contains no place
 That has been left without its grace ;
 And beauty's o'er the picture laid
 In countless tints of light and shade.

I'll never, Nature, bid farewell
 To thee : thou in my brain shalt dwell,
 Till mind shall have outgrown its clay,
 And left its garment to decay.

J. W. D.

The above "Lines, written on visiting the Neighbourhood of Box Hill, Surrey, June, 1837," and published in the 5th volume of the Entomological Magazine, are still as applicable to this delightful spot as then. The railroad, rendering it easily accessible to the Londoner, has not interfered with its beauties ; the experience of last summer has satisfied me that stopping at Box Hill, and collecting there morning and evening, is compatible with being in London from 9 a.m. till 4.30 p.m. I always used to envy the Glasgow men of business, that they could spend their evenings in such picturesque places as Helensburgh, Dunoon, Kilmun, &c. ; the advantage that they had over us cockneys, in the sudden transition from the busy town to some of the loveliest scenery imaginable,

appeared to me one they did not duly appreciate. At that time I had not visited Box Hill, and knew not the peculiar character of its scenery, which is beyond comparison the most beautiful in the vicinity of London. The Box Hill Station, on the Reigate, Guildford and Reading Branch of the South-Eastern Railway, is about a mile from the Burford Bridge Inn, which stands exactly at the foot of Box Hill, and from the garden of the inn you can walk straight on to the hill. On the top of the hill are a number of beech trees, in the leaves of which the larva of *Nep. Tityrella* were first found ; and on some plants of *Echium*, on the summit looking towards Dorking, was the little *Douglasia Ocnerostomella* in plenty, and *Coleophora Onosmella* more sparingly. Further round, looking towards Betchworth, *Gelechia Artemisiella*, has occurred ; and among the *Sedum acre* which grows on a stony place before you enter the wood that clothes the summit, *Glyph. equitella* is not uncommon ; lower down the hill *Coleophora lixella* has been obtained by sweeping ; whilst on the grassy slope, more towards Mickleham, *Parasia Metzneriella* has occurred. Much yet remains to be done by the TINEINA collector here.

Those who are unable to get as far from London during the week, will find that by taking the 6.30 A.M. train from London on Sunday morning, they may have a long day here ; but they must not be surprised if, on arriving at Burford Bridge, they find the good people of the inn still in their beds ; a line previously to announce their intended visit, by causing breakfast to be *ready* on their arrival, would save them a full half-hour, which otherwise is wasted whilst breakfast is being prepared.

CHARLTON.

A strange locality, yet still, I believe, a good one ; if you land at the Charlton Pier, and taking the road to Greenwich, take the second turning to the left you will find yourself in Charlton Sand-pit. I have hardly been here since larva-collecting became so prevalent ; and to collect perfect insects is here no easy matter. In the first place, you cannot escape from a wind, which comes in gusts and eddies, first in this direction, then in that ; in the second

place, if you are conspicuous from having a net in your hand, you will have a train of attendants, like an owl flying by daylight, and wherever you go you will be pursued by some half-dozen little urchins, so that if you suddenly wish to make a dash at some rapid *Gelechia* your arm is stayed by the difficulty of doing so without knocking off the head, or dislocating the arm, of some small boy. Among the good insects that have been taken here I may mention, *Depressaria nanatella*, first beaten out of a furze bush here, *Æcophora Lambdella*, *Gelechia senectella* and *acuminatella*, *Gracilaria omissella*, *Coleophora argentula*, *Coleophora saturatella*, *Gelechia tenebrosella*, *Trifurcula immundella*, and *squamatella*, *Gelechia Metzneriella*, &c., &c.

DARENTH WOOD (*Darn*).

I give the latter name as a synonym, because one of my friends once spent a whole day hunting for the wood, ignorant that a confusion of names occurred in reference to a place frequented by insects, just as a confusion of names prevails with respect to many insects themselves. Greenhithe can be approached either by land or by water, either by the North Kent Rail or by the Gravesend steam boat; thence to Darn is some three or four miles inland. I have never been to it but once, March 29th, 1850; the snow then lay on the ground in many places, and the only doings of the day were the discovery of the larvæ of *Laverna Staintoni*, and the finding (for the first time in England) the larvæ of *Depressaria assimilella*. From the reputation it has for the larger *Lepidoptera*, I have no doubt it would furnish a goodly crop of *TINEINA*.

DARTFORD HEATH.

A nice place for a lazy man; blows it but sufficiently strong from the south-west he may pick moths off the fence at his ease, all that he has to do is to box them; he hardly needs to look for them, for there they are, and he must be stupid if he can't see them. Dartford Heath is now easiest of access from the Dartford Station of the North Kent Railway, whence a three mile walk will bring the collector to the north-east corner of the black fence

(celebrated for *pictaria*), which surrounds Baldwyns : on this fence have been taken *Semioscopis Steinkellneriana* and *Avellanella* ; *Talæporia pseudo-bombycella* and *Solenobia inconspicuella* ; *Ocnestoma piniariella* ; *Lyonetia Clerckella* ; *Nepticula floslactella* ? (I rather think it is an un-named species, it abounds here in April) ; *Nep. sericopeza*, *intimella* ; *Bucculatrix cidarella* ; *Elachista gangabella*, *laticomella*, *Gleichenella* ; *Coriscium cuculipennellum* ; *Cedestis farinatella* ; *Batrachedra pinicolella* and *Lithocolletis Scopariella*. *L. ulicicolella* has occurred amongst furze bushes close by. At the opposite corner of the heath, in a dell towards Bexley, *Cleodora Cytisella*, *Gelechia senectella* and *lutulentella*, *Coleophora pyrrhulipennella* and *niveicostella*, and *Ochsenheimeria Bisontella*, have occurred, and in the neighbouring hedges, in the leaves of *Artemisia vulgaris*, the larvæ of *Gracilaria omissella* may be found in plenty, and an un-named *Coleophora* has been obtained by sweeping the said plant.

DULWICH WOOD.

I fear this is now too near London to be specially worth visiting, but in 1838, when I first knew it, it was a first-rate locality, and, probably, some who have Entomological tendencies may be located in that large town I see rapidly growing up before me, and technically termed Upper Sydenham ; if so, a brief mention of its capabilities will not be altogether thrown away, though I fear the time is not far distant when the wood will disappear bodily, and be replaced by houses. *Semioscopis Steinkellneriana* and *Avellanella* have both occurred here ; they likewise used to sit on the Penge Fence, before the Crystal Palace Company took it down in order to include the old Penge Road in their Park. I fear the prescriptive right of Entomologists to catch insects off this fence (and here I once took *Polia tinctoria*) was not sufficiently considered ; at any rate I never heard that they had any compensation awarded them, though the loss of the best locality for *Solenobia inconspicuella* was really a heart-rending case. *Gelechia maculiferella* has also occurred in Dulwich Wood, and here the *Lithocolletides* first received the name of *Stainton's ducks*.

EPPING FOREST.

A nice locality for many things: I used formerly to visit that portion of it which extends to Wanstead, and which is only two miles from the Stratford Station of the Eastern Counties Railway. The principal trees here are hornbeam and aspens. On the former grow the fungi which produce *Tinea corticella*, and these trees also produce *Lith. carpinicolella* and *tenella* (the latter has hardly occurred elsewhere): on the aspens sits the active *Gel. nigra*. It was in a furze bush here that *Æcop. Lambdella* was originally found, and the rarer *Æ. formosella* was taken on palings in this neighbourhood. Many other rarities are probably still to be found by the diligent collector.

GREENWICH MARSHES.

A locality only discovered last summer, and, though not very attractive to human beings, no doubt prolific enough in insect life. To find the locality, it is necessary to proceed from Greenwich along the Woolwich Road, till you get through the first turnpike, and then turn towards the river. The ditches are full of reeds (*Arundo phragmites*), in the leaves of which mine the larvæ of *Ela. cerusella*.

HAINAULT FOREST.

This extensive forest, now, alas! doomed, almost joins Epping Forest, and probably produces most of the same insects. I believe it is best reached from the Ilford Station of the Eastern Counties Railway. Here have been taken *Aplota palpella*, *Gelechia junc-tella*, *Psoricoptera gibbosella*, *Laverna Stephensi*, &c.

HAM COMMON.

A locality probably never visited by the excursionist. It is situate about half way between Richmond and Kingston, and adjoins Richmond Park. In 1842 I spent three months here; and though not then "up to snuff," I remember that *Anarsia Spartiella* was excessively abundant, *Sophronia parenthesella* not uncommon; and of *Gelechia lutulentella* I took here a single specimen.

HAMMERSMITH MARSHES.

A locality I have never visited. It has produced, however, several good insects, probably more owing to the continuous exertions of Mr. Stevens than to any intrinsic goodness of the place. We continually find that it is *the person* and not *the place* that makes a good locality. Thus the reputation Ripley has enjoyed for more than a quarter of a century is owing to the late Mr. Stephens having collected assiduously there for six weeks. Among the good insects that have occurred here, *Laverna Phragmitella*, of which only two worn specimens are known, deserves special notice; and *Ela. cerusella*, *Gel. lucidella*, are common here.

HAMPSTEAD HEATH.

When at King's College I often used to visit this locality, but have not been there for more than twelve years, so that I have little idea whether I should find it as I left it. However, Mr. Smith appears still to find bees here, and I know not why they should continue longer than the *Micros*; certainly if the fossorial *Hymenoptera* abound here, the larvæ on which they feed cannot be far off. I believe it has been observed that particular species of *Hymenoptera* store up only particular species of larvæ, even though of great rarity. Might we not by observation and study of these insects get a useful hint or two, and perhaps a *Micropteryx* larva?

HYDE PARK.

A tempting locality surely, yet not to be despised. Whilst *Ægeria cynipiformis* is to be obtained nowhere else, there will always be a certain number of Hyde-Parkers, and they for want of better game will sometimes pounce upon a luckless *Æcophora*. Here have been taken *Æ. unitella*, *augustella*, &c.

MICKLEHAM.

Not to be confounded with Box Hill. The localities, though adjoining, have each peculiar characters. Mickleham may be

reached either *viâ* Epsom, whence it is distant some six miles, or *viâ* the Box Hill Station, which is within three miles. The latter is the longer railway route, but an obliging omnibus will carry you from the station, depositing you at the Running Horses without charge. "To Leatherhead and back free" is the conspicuous notice outside the omnibus. Leatherhead, it will be remembered, is entomologically important, as being the place where *Gel. alucella* and *Bedellia somnulentella* were first taken by Mr. Bedell. On arriving at the Running Horses you may feel fatigued with your journey; if so, a cup of tea and some broiled ham (for which the house is famous) will refresh you. Then proceed through the churchyard, and across two fields, and through a narrow plantation, and you find yourself in a snug corner of the Downs. The junipers here are well sheltered, and grow to large size, in spite of all the attempts of the *Argyresthiæ* (*arceuthina*, *præcocella*, *abdominalis*, *dilectella* and *aurulentella*) to check their luxuriance. *Elachista Gleichenella*, *triatomea*, *pollinariella*, *Coleophora lixella* and *niveicostella*, *Bucculatrix frangutella* and *Lithocolletis Lantanella*, also occur here. By continuing your course up the hill and straight along the top, till you reach the end of the inclosure on the right, you will arrive at the *Sanctum Sanctorum* of Entomologists, "The hilly field at Headley Lane." The air is scented with the marjoram on which you tread. The luxuriance of vegetation here affords nourishment to thousands of insects. Probably there are few spots of ground of equal size on which so many of our *Tiny* friends simultaneously occur. To enumerate would be tedious; but as some of the plums I may mention *Coleophora conspicuella*, *Gelechia Coronillella*, *Parasia neuropterella*, *Gracilaria Ononidis*, *Elachista Brunnichella* and *Nepticula Headleyella*.

RICHMOND PARK.

I can say but little of this as an entomological locality. I don't remember ever taking a *Micro* worth mentioning here; yet the fault might be mine, and not that of the locality. The hollow towards Ham Common used to produce me a few *Macros*.

SANDERSTEAD.

Proceeding from Croydon along the old Brighton Road, you soon find a broad elevated path, which is more generally used as the footpath. This is the old tramroad, one of the earliest railroads in the country, formerly used for conveying lime to the Thames at Wandsworth. The rails are now gone, and even the stone sleepers; but everything answers *a* purpose, and the holes where the sleepers have been afford shelter to the vegetation and to insects. It has frequently happened that an Entomologist setting off to go to Sanderstead has found such profitable occupation on the sides of this tramroad, that his intended destination has never been reached. The following species have been met with on this tramroad:—*Depressaria pulcherrimella*, *Nemotois cupriacellus*, *Bucculatrix cristatella*, *Elachista subnigrella* and *Lithocolletis Scabiosella*. It was the discovery here on the 9th April, 1852, of the larva of the last-named species, that led Mr. Douglas and myself to prosecute more assiduously our larva-investigations, and to intrust the larvæ found to Mr. Wing to be portrayed by his pencil, which proceeding led first to the appearance of Mr. Douglas's interesting "Contributions to the Natural History of British Micro-Lepidoptera" in the Transactions of the Entomological Society, and has now developed itself into the intended larger undertaking, "The Natural History of the Tineina." To reach the Sanderstead Downs it is necessary, soon after passing the Windsor Castle, to turn to the left, and then proceed in a straight line to the top of the hill. This is a good locality for *Gelechia sequax*, *Elachista cinereopunctella*, *Bedellella*, *Ypsolophus marginellus* and the juniper *Argyresthiæ*.

STOAT'S NEST.

By pursuing the tramroad two miles further than we do in going to Sanderstead, we arrive at the Stoat's Nest Downs, which may also be reached from the Stoat's Nest Station of the Brighton Railway. Many of the insects here are the same as at Sanderstead; but *Depressaria badiella*, *Gelechia distinctella* occur here,

and I never observed them at Sanderstead; and moreover this is the only locality where *Chauliodus insecurellus* has yet been met with (I wish we could find its larva, which no doubt feeds on some of the *Umbelliferæ*). It was by beating the thatch of an old barn here that Mr. Bedell obtained *Depressaria Pimpinellæ*.

WANSTEAD.

This locality I have already mentioned under the heading Epping Forest.

WEYBRIDGE.

I have been here but once, on the occasion of an excursion of the Entomological Society, in July, 1851: this shows how useful these excursions may sometimes be, in taking Entomologists to new localities; we all prefer going to a place that we know, to a place we don't know; hence, but for some extraneous force to move us to a new place, we should never try one. This locality is easily accessible; you have but to get out at the Weybridge Station of the South Western Railway, and without walking a hundred yards, you are already in good collecting ground. On the excursion-day above-mentioned *Gelechia affinis* and *Batrachedra pinicolella* were taken here.

WEST WICKHAM WOOD.

It is situated four miles from the Norwood Station of the Croydon Railway; but good collecting may be done in approaching it, as in a hedge-bank along this road Mr. Douglas found the *Coleophora* larva on *Inula dysenterica*, which produced his *Inulæ*, now merged into *Troglodytella*. The wood, when reached, is very extensive, and comprises a large heath-field, from one corner of which a footpath leads to the renowned *Hypericum*-ground, where innumerable rarities have occurred, and where *Gelechia peliella* and *immaculatella* have only hitherto been taken. On an oak tree in a corner of the heath-field it was that, on the 30th June, 1847,

Nepticula quinquella swarmed. I then was inclined to pass it as a variety of *subbimaculella*, but fortunately the lynx-eyed and ever active Mr. Bedell was with me; he at once saw the distinctness, and induced me to bag a few. I have since seen but two living specimens! Refreshment may be obtained at The Cricketers, at Addington, within half a mile of the wood.

WIMBLEDON COMMON.

Mr. Dunning's former residence at Putney, and Mr. Grant's continuing residence there, have led to the discovery of several of the *Micros* of this place; amongst which, one of the most interesting is the beautiful *Adela cuprella*; *Gelechia velocella* and *pictella* also occur here.

The above notices must content the Londoner; I wish I could do a similar kind turn to the provincial collector, but I fear each town must work out its own localities; at any rate, I fancy I should get into a nice hobble if I were to attempt to tell a Manchester-man where was the best place for him to look for insects, though whether he would take such instruction one whit more kindly from another Manchester collector, I *may* rather doubt.

As a sample of an Entomological excursion in Scotland, I give the following :—

TEN DAYS AT KILMUN, WITH A TRIP TO THE ISLE OF ARRAN.

ARRIVED at Strone, the west end of Kilmun, at 5 P.M., July 12th, 1850. But stop—I hear some one say—where is Kilmun? Kilmun is a watering-place down the Clyde, on the shores of the Holy Loch (a salt-water loch), about one hour's steaming from Greenock. The promontory on which it stands separates the Holy Loch from Loch Long; consequently, from the top of the hill behind Kilmun, which rises rather abruptly to a considerable height, a fine view of Loch Long and “the dark Loch Goil” is obtained, besides the extensive views up and down the Clyde, which here forms a curve nearly at right angles with its previous course.

Directly after tea, determined, as at Chudleigh (Zoologist, 1851, p. 3063), to lose no time, I sallied up the hill, and to my extreme surprise found near the summit, amongst some rushes, *Chrysoclista Schrankella*, which at that time (Mr. Scott not having discovered the larva) was a great rarity. Unfortunately I was too late for the insect, and except two passable specimens, the others were hardly recognizable. I caught some *Glyphipteryx Thrasonella* very industriously, because some were so small I thought they *must* be a distinct species. I have since examined those specimens with every care and attention, but cannot discover anything like a specific character by which to distinguish them. My other captures that evening were the common *Coleophora cæspititiella*, a single *discordella*, and some *Gelechia politella*. The next day I of course tried for some more *Schrankella*; and though, it is true, I found some, they were all in very sorry condition; but as frequently happens, in looking for one thing you find another, I here took by sweeping the rushes my two specimens of *Coleophora junciolella*, and a few specimens of *Elachista Eleochariella*, which at the time I overlooked as *E. Rhynchosporella*.

The 14th was a tremendously hot day—one of those days that are even *too* hot for insects: no *TINEINA* fell to my lot.

The 15th, I crossed over the loch to a boggy piece of ground

near Sandbank ; here my first capture was *Gelechia boreella* (still unique ! It is very strange, but frequently on arriving at a place the very first thing you get is better than all your subsequent captures). I here found a *Coleophora*, new to me ; it appeared to frequent sallow or *Myrica gale*, and I subsequently distributed specimens as *lithargyrinella* ; I am now satisfied it was *viminetella*. Recrossed the loch in order to recruit the inner man with dinner ; and afterwards, to promote digestion, ascended to the summit of the hill, and had the pleasure of there catching upwards of thirty *El. Kilmunella*, which were flying slowly, threading their way between the rushes and stems of grass.

The 16th, if I remember rightly, it poured with rain ; it *does* rain *sometimes* in the Western Highlands. I only caught a solitary *E. obscurella*.

The 17th, I revisited the boggy place near Sandbank ; but I should premise, I was not living like a hermit all this time. Mrs. Stainton and one of her sisters, then rather an invalid, were with me, and we were visiting a very pleasant lady, the wife of one of my cousins. On the 17th, as I was saying, I again crossed the loch in the middle of the day, and Mrs. Stainton being with me, and the weather being propitious, I was doing famously. I got one *Nemotois minimellus* and a dozen *Col. viminetella*, one of which, then in the pupa state, has, by its peculiar case, removed any lurking doubts I might have had as to the identity of my then called *lithargyrinella*, with what we now breed as *viminetella*. I also caught several *El. Eleochariella*, and was proceeding—when lo ! a flash of lightning and a clap of thunder and some unpleasantly large drops of rain, said pretty plainly it was time to retreat ; accordingly we were setting off towards a cottage that was near the ferry, when Mrs. Stainton stopped, in order to provide better for the safety of her bonnet. If a lady gets caught in a shower without either umbrella or parasol, she is sure to be in a dreadful panic for the mishap that will befall her bonnet—something must be done for its protection. Mrs. Stainton's device was ingenious : not thinking the best place for her bonnet was on her head (to be sure, they are worn *behind* the head now), she took it off, and carefully

pinned it beneath her petticoat; we then made for the cottage, where several, like ourselves, had been driven to seek shelter. Mrs. Stainton sat very carefully on the edge of her chair, fearing to crush her bonnet; but on the storm abating a little, after we had been under cover for half an hour, she thought of putting on her bonnet, when to her dismay it was not in the secure haven where she had placed it! Of course there was but one solution of the mystery—it must have dropped soon after it had been pinned there; and on my running back to look for it, there sure enough it was on the grass, without any shelter, and nicely drenched. After waiting for another half hour it was quite fine, and we recrossed the ferry and arrived at Strone, much to the delight of our hostess, who had been in a peek of troubles at our being out in the storm. She was sure we should either be killed by the lightning, or catch our deaths of cold from getting wet. However, after a while she was satisfied by our assurances we were unhurt; and then we had to hear of the panic she was in because Miss S. R. Dunn had been on the water during the storm, which had been far more severe at Kilmun than at Sandbank, and she expected every minute to have seen the boat swamped; however, she always was in a panic at something or other (and no doubt is so still), but these frights never do her any harm. We all laughed at her and then she laughed too, for she's the best tempered creature: but every now and then she said, with a solemn shake of her head, "Well, ye just don't know what an awfu' fright I had."

The 18th, we went up the valley to Loch Eck, but here I found no *TINEINA*, only a few *Crambus margaritellus*, so the day was rather a blank.

The 19th we set off to Arran. Now, a few words about the Isle of Arran. It is a large island, with very high hills, and between them extensive valleys; the principal place is Brodick, near Brodick Castle, the seat of the Duke of Hamilton, to whom nearly the whole of the island belongs. There is an inn at Brodick, three stories high, but otherwise the houses are all of one floor only; and as the Duke of Hamilton does not encourage building, and will not let the ground for that purpose, and as at the same

the Glasgow citizens *will come* and bivouac on the island during summer time, it follows that every bed in the place soon gets let, and the rightful occupants are glad to make a little money during the season by turning out of their own beds. We had written to the landlady of the inn to secure three rooms for us, but on our arrival we found that all she had for us was "a single and a double," which, on consideration (for we were expecting Mr. John Dawson, our hostess's husband, the following evening), we declined. We set off on a tour of the place, searching for rooms wherein to sleep that night; it was then about half-past eight, and we should have been glad to have got settled at once. We inquired at several places, but could hear of no accommodation: till at length one woman came running with the intelligence that she knew a place that would do for us; so we went eagerly to see, but when we arrived at the place we found only a large kind of barn, with a dilapidated window in the roof; it looking extremely dirty, and there had been a grand washing of clothes going on in it all day. The idea of sleeping there! The woman who owned it said she couldn't recommend it for ladies, but "it wad do foine for gentlemen." This idea of what would do "foine" for us did not add to our comfort; but, fortunately, just then we received intelligence that accommodation was to be had at Corry. Where was Corry? and how were we to get there? were the questions we immediately asked. Oh! it was five miles and a bittock; and so and so had a droshki, and would drive us over directly; so after instituting very minute inquiries as to the possibility of our being taken in when we got there, we all four, with carpet bags, setting board, &c., scrambled into the droshki, and shook down as the vehiele joggled along the road. It was now past nine o'clock, but it was a beautiful night, and the air, the whole distance, was strongly scented with the *Myrica gale*, which grew luxuriantly along the boggy ground we drove past. We arrived at length at Corry, monstrous stiff, very tired, and rather hungry, but all very jolly,—for had we not been cracking jokes all the way at the novelty of our predicament? The first news we got on arriving at Corry, and pulling up at the door of the inn, was bad, decidedly

bad: "We are quite full," said the landlady. Fortunately for us the barber of the place saw us arrive, and heard this reception; he at once began to tell us he knew where we could be taken in, and ascertaining from the landlady that the barber might be trusted, we followed him. Shortly he stopped at some cottages, and calling out, "Maggie, are ye in? Jeanie, are ye in?" he proceeded to prosecute his investigations in the interior, and presently came running back with the (to us) joyful intelligence that he had found a place that would just suit us. We went to judge for ourselves, and, finding things, though rude and homely, looked as though we might be comfortable, we at once decided on the lodgings; though I confess it rather seemed too bad of us, that the people had actually been in bed, in the very beds we were to occupy, but had turned out on our arrival. Well! first we must have something to eat and to drink; well! the barber sold bread, the barber sold tea, the barber sold everything! A fire was soon lighted, the kettle put on to boil, and while we were discussing our late tea, about half-past ten, clean sheets were put on the beds, and everything made as comfortable for us as the poor people's circumstances would admit. Consequently, we soon got to bed. The cottage, though with only one door, was in reality two distinct houses, and in each was a bed, the previous occupants of one going to some friends for the night, and the previous occupants of the other sleeping in a sort of back room they had. We were soon asleep, though not without some fears for the safety of our shins, for a huge quarto Bible was placed on a shelf above the foot of our bed, and seemed to be in anything but a position of stable equilibrium; and the reflection that if a fire broke out we should get well roasted, was caused by the good people of the cottage keeping their store of coals beneath our bed. But we slept soundly, and the first thing we heard in the morning was Mrs. J. Dawson's merry laugh at the novelty of her situation; to hear that laugh was enough to put anybody in good humour, and certainly we felt disposed to be jolly. To get breakfast was the first consideration; some who had been out fishing had caught some herrings, and having bread, tea and eggs, every essential for a breakfast was before us. After

breakfast we made inquiries at the inn to ascertain if we could get our dinners there, and found that they could accommodate us in that respect. We also, taking the good barber as our guide, went in search of additional lodgings; for Mrs. J. Dawson expecting her husband that day, thought she would leave Miss Dunn a bed and bedroom to herself, and so trotted off in search of a room for herself, whilst we went in search of another room for Mr. Jobson, also expected by the steamer in the afternoon. We soon found clean lodgings, and having arranged our plans we proceeded to make some entomological captures, and continuing along the coast northwards, till we came to the entrance of Glen Sannox, turned up that glen. Here among some alders I took *Col. fuscedinella*, as might have been expected, and also one *C. orbitella*, though I did not recognise it at the time of capture, or probably I might have met with others. It was among these alders that I found the unicolorous dark specimens of *Argyresthia Brockeella*, which, till I caught them, I had hardly believed in. Among salallows and *Myrica gale* I also found *Col. viminetella*, and three *Incurvaria Oehlmanniella* were taken flying rapidly over the heath; but with the exception of an *El. Rhynchosporella* and a few *Kilmunella*, I took no other *Tineina*; though I spent some time scrambling into the crater of one of the peaks, and then chasing the *Harpalyce russata*, var. *boreata*, which settles so abundantly on the sides of the "muckle stanes" there. In using the word crater, I do not mean to say I was in a volcano; but I know no other word that will sufficiently express the singular conformation of the summits of the hills at Arran. If you break a coffee-cup in two, straight down the middle, and imagine yourself entering at the bottom and scrambling up the inside, you will have a good idea of the locality. I have not met with these craters anywhere else, but at Arran it is the normal form.

When the steamer was expected in the evening, a boat put off from Corry to meet her; and as I knew my friends would otherwise proceed to Brodick, I went off in the boat to tell them of our location, and get them to come ashore there. The principal oarsman of the boat was our friend the barber, who, whether he was

acquainted with his namesake of Seville or not, was certainly the *factotum* of the place. The steamer soon arrived, and I rushed on deck, much to the surprise of my cousin, who was carefully scanning the hill sides with reference to their capabilities of affording good sport the next day. I soon explained to him that he must come ashore, and rushed into the cabin, where I found Mr. Jobson chatting with Mr. Scott, who was an unexpected addition to our party; but the more the merrier, and we were soon all ashore at Corry; when, of course, the first thing to be done was to secure another house for Mr. Scott, so that we were scattered over five of the principal houses in Corry.

We went out in the evening, but, except a *Zerene rubiginata* or two, we found nothing; so after tumbling over some stones and stumps in the evening dusk, we returned to the inn for supper.

July 21st, a dull drizzly day, with a high wind. Reader! did you ever go out for a day's excursion in Scotland, taking the precaution to arrive at your grounds over night, that it did not pour all day; if so, you are fortunate. Larva-collecting was then hardly dreamt of, or perhaps Mr. Scott and myself, operating on one another like flint and steel, might have turned up some novelties; so we waited in all the morning, hoping it would clear up. The time was profitably occupied in setting my captures of the previous day on a three-legged table, which would only stand steady when propped up against the bed. About noon the rain left off, and the wind abated a little, much to the relief of Mrs. John Dawson, who did not relish the looks of "the white sheep" on the sea, having a mortal aversion to salt-water excursions, even in the most favourable weather. The males of the party proceeded accordingly up the hill; but the only thing we found worth mentioning was *Hipparchia Blandina*, which, often as I had collected in Scotland, I had never seen on the wing before. These were then only just out, and we found but very few. Of *Micros*, from the force of the wind, we found none.

July 22nd, rather dull, but less wind, and now we all astir at an early hour; for the steamer left Brodick at seven, and would pick us up at 7.15 P.M. The good people of the cottage were very sorry

we were not going to make a longer stay, but hoped we should come again in the course of the summer, or perhaps we should be there next summer, when they hoped to have an additional room built to the house. The passage across to the Cumbrays was *rather* rough, just sufficient to satisfy Mrs. J. Dawson that she had not had all her qualms for nothing; and in due time we arrived at Greenock, where, having to wait some time for a steamer to Kilmun, we breakfasted. We reached Kilmun about two p. m., and at three o'clock we were again on the boggy ground at Sandbank, where I took a single specimen of *Opostega crepusculella*, three *Nemotois minimellus*, and a worn *Butalis torquatella*.

July 23rd, it rained and blew so all the morning, that I got nothing; but in the afternoon I was again at Sandbank, where I only obtained one insect worth mentioning, *Tinea bistrigella*.

July 24th, it rained gloriously; and as we were to leave that day, I was not sorry. The place seemed weeping at our departure, and the misty look cast over the landscape harmonized rather with our feelings at the termination of so pleasant an excursion.

ON THE NECESSITY OF THE COLLECTOR KEEPING A JOURNAL.

THE main object of the collector is two-fold—to catch insects, and to observe them—the observations he makes frequently leading to the discovery of readier modes of catching them.

Now, unless some record be made of the date of appearance of a species, the collector would be apt to forget to look for it the following season at the right time, or, if he had no record of the locality where he found it, he might be searching precisely in the opposite direction. Hence a Journal of his captures *must be kept*. In this Journal the species would naturally be *enumerated* in the order of their capture; but a difficulty here presents itself. Many species are not immediately recognized when taken, and have to be carefully examined, and probably compared with specimens in other collections. It is often impossible to do this amid the bustle of the collecting season; hence the species concerning the names of which the collector is doubtful, including probably several new species, cannot be *enumerated*, as he knows not by what name to insert them in his Journal. Some years ago the late Mr. Stephens proposed in the Zoologist for 1847 a plan for labelling captures, and the idea there suggested has led many Entomologists systematically to label all their captures, each insect bearing a number. These numbers are all indicated in the Journal; consequently on discovering that No. 2052 is a great rarity, by reference to the Journal, it is at once ascertained when and where No. 2052 was taken; and if a line be left in the Journal for each species, the names of any or all of the species which were unknown at the time of capture may afterwards be inserted. I have still a considerable quantity of printed numbers for labelling, and shall be glad to hear from any one who wishes to adopt this system.

The Journal above alluded to would naturally relate only to perfect insects; for though it is true all insects bred would appear in it, and the food-plant of the larvæ which had produced them would of course be mentioned, yet the date of finding the larvæ

would probably have already slipped the collector's memory, and an important piece of information would thus be wanting. It is therefore extremely desirable that the collector should also keep a Journal of the larvæ collected, including any observations of indications of where larvæ have been, which he may happen to make; for it may well happen that he may detect evident signs on vegetation that larvæ have been at work, yet he may be too late to find them. By recording, however, this observation in his Journal, he will be reminded to recur to the plant in question at an earlier period of the ensuing season.

It is only during the past year that I have been led to keep a Journal of this latter kind, which, with the view of diffusing every scrap of information I obtained (and not from any desire of displaying my own doings), I here annex almost *verbatim* from the original. It will be seen that it includes not only my own actual doings, but also those of any of my friends who were collecting with me, and also notices of all the larvæ or pupæ shown to me or sent to me by other collectors. Not knowing how far my correspondents would like their names to figure at full length, I have designated each by his initials, but I imagine no Entomologist will have any difficulty in recognizing which of his brethren "of the tin canister and glass-jar" is intended.

The Journal may be of use to the tyro as a pattern, though not improbably its publication may lead to my receiving useful suggestions for improvements, in the mode of recording observations, from some of more experience.

JOURNAL OF A LARVA COLLECTOR FOR 1853.

- Jan. 1st. Received from J. N. W., at Brighton, larvæ mining the leaves of *Atriplex portulacoides*? apparently some *Gelechia* (none came to maturity).
- 9th. (3—4 P. M.) Found several larvæ of *Nep. aurella*, some full grown, other small. Poked into a decayed stump of an oak tree, but found only some large Dipterous larvæ.
- 14th and 19. Received from H. D. some larvæ of *Æcop. pseudo-spretella*, feeding on dry peas.
- 30th. (10 A. M.—1 P. M.) Found some "frass" at the top of an oak stump; poked away and found a larva of *Dasycera sulphurella*; took a piece of bark from a paling and found beneath it another *sulphurella* larva; found some "frass" on a willow at Southend, and cut out a larva of a *sulphurella*, fed up, and preparing to change. Found many larvæ of *N. aurella* of various sizes, and also larvæ of *Tis. marginea*; poked in the stump of an oak and turned out several *Elaters* and a small Lepidopterous larva (? if the young larva of *sulphurella*); under a piece of bark, on paling, found a pupa of *sulphurella*, and another in a rotten hedge-stake; under bark of paling obtained one stoutish unknown larva (this eventually died, it may have been an *Endorea* or *Crambus*).
- Mar. 3rd. Examined the dry peas, and found several cocoons encrusted with fragments of dry peas; opened one cocoon and placed the larva and cocoon in a small glass tube and closed it hermetically; on the 5th it was outside the cocoon and had changed its skin! on the 6th it returned to the cocoon and resumed its former position.
- 7th. (6½—7¼ A. M.) Searched for larvæ of *C. albitarsella*, but found none; found one small larva (*Tortrix adjunctana*) on *Chærophyllum*, and one green larva, with reddish stripes on the back, on grass (*Miana*? this larva died March 23rd).
- 10th. (4½—5½ P. M.) At Sydenham palings, found one active larva of *Sol. inconspicua* (and an imago of *N. aurella*).
- 11th. W. W. found a larva of *N. aurella*.
- 13th. (3—4 P. M.) Found several larvæ of *N. aurella*, mostly of large size, and a few larvæ of *Gel. tricolorella*.
- 14th. (6—7 A. M.) Found larvæ of *G. tricolorella*.
- 15th. (6—6½ A. M.) Found a larva of *Abrostola*? inside a dry *Urtica* stem.
- 16th. (6—7 A. M.) Found one small larva outside the bark of an oak branch, beneath a whitish web. (This larva died.

- Mar. 19th. (6—7 A. M.) Visited the head quarters of *C. arbitarsella*, but found none; two Dipterous larvæ in *Urtica* stem; several larvæ of *Gel. tricolorella*; and a *Sericoris* larva in top of *Galium aparine*.
- 20th. (4—5 P. M.) Found several larvæ of *G. tricolorella*, and several of a mining larva, in grass, *Dactylis glomerata*, marking the grass very like a Dipterous larva (*Elachista* larva, No. 1—none of this were reared); it possessed the power of moving from one leaf of grass to another.
- 21st. (6—7 A. M.) Found several of *Elachista* larvæ, No. 1, in *Dactylis glomerata*.
- 25th. (Ther. below 20° at 7 A. M.) (2½—5 P. M.) Found four of another grass mining larvæ (*Elachista* larva, No. 2, none of this were reared, every specimen found being ichneumonid); and one dark mining larva (No. 3, *E. Megerlella*), in a broad leaved grass, *Melica uniflora*?; found two larvæ of *N. aurella*, and a few of *Gel. tricolorella*.
- 26th. (6—7 A. M. ther. 23°.) Found nineteen *Elachista* larvæ, No. 1, in *Dactylis glomerata*, and two in *Holcus mollis*? and one of No. 2 in another grass.
- 27th. (6—8½ A. M. ther. 27°.) Found several larvæ of *G. tricolorella*; seventeen *Elachista* larvæ, No. 1, in *Dactylis glomerata* and *Poa annua*? and one in *Holcus mollis*?
- (3—5 P. M.) Found about a dozen *Elachista* larvæ, No. 2, and one *E. megerlella*.
- 28th. (5½—7 A. M. ther. 32°.) Found several *Elachista* larvæ, No. 1, in *Dactylis glomerata*.
- 29th. (5½—6½ A. M. ther. 29°.) Grass too white; found nothing.
- 30th. (5¾—7 A. M.) Found larvæ of *Par. Lappella*, in seeds of *Arc-tium Lappa*.
- (6½—7 P. M.) Found two *Elachista* larvæ, No. 1, in *Dactylis glomerata*.
- Apr. 2nd. (6—7 A. M.) Found one *Elachista* larva, No. 2.
- 4th. (6¼—7 A. M.) Found one *Elachista* larva, No. 2; one larva of *El. Megerlella*, in *Melica* (?); and one larva of *Gel. tricolorella*.
- 5th. (5½—7 A. M.) Found fourteen larvæ of *E. Megerlella*.
- 6th. (6—7 A. M.) Found two larvæ of *E. Megerlella*; three of *Col. lineolea*, on *Ballota nigra*; and some larvæ on nettle (*Simaëthis Fabriciana*).
- Several of the *Elachista* larvæ, No. 1, came out of the grass and crawled about the cages, in search of —? I offered them earth, but to no avail.
- 7th. (6—7 A. M.) Found three larvæ of *E. Megerlella*; and two of *Elachista*, No. 2; also one larva of *Gel. rufescens* (which I sent to R. F. L.)

April 8th. WENT TO DAWLISH. Went over to Teignmouth in the evening and saw C. J. R. J. He showed me his stock of winter leaves, viz. hawthorn (*L. pomifoliella*), beech (*faginella*), and sallow (*viminiella*). Of *Viburnum lantana* (*L. Lantanella*), we opened some of the leaves and found the larvæ not yet changed! Of *Nepticulæ*, in cocoon, he had two *Aurella*, one *Floslactella* and two *Microtheriella*, from nut, and one *Oxyacanthella*; and several larvæ of *C. albitarsella*, collected in November and December.

9th. (9 A. M.—1 P. M.) Found several *Elachista* larvæ, No. 1, and one *E. Megerlclla*; several larvæ of *Gel. tricolorella* and *Col. albitarsella* and a dark brown larva (*Sericoris*?), in the top of *Galium aparine*; several larvæ of *Gra. tringipennella*, about full grown, in the leaves of *Plantago lanceolata*, and a larva of *Scopula*? on *Cotyledon umbilicus*, and one on *Lychnis*.

10th. (2—5 P. M.) Found many larvæ of *Gra. tringipennella* on *Plantago*, and six larvæ of *Col. discordella* on *Lotus corniculatus*; met R. C. R. J. and C. J. R. J., and went to Dawlish Warren, searching diligently on all fours, but found nothing; returning, found some larvæ of *Gel. Anthyllidella*, on *Anthyllis vulneraria*.

11th. (9½—11 A. M.) Found a largish white larva in a cocoon, in an old hollow stem (*Botys urticalis*), and larvæ of *Simaethis* on nettle.

LEFT DAWLISH 0.7 P. M.

12th. (5½—6½ A. M.) Found many larvæ of *Gel. tricolorella*; two of *E. Megerlclla*; several of *Elachista*, No. 1, which I took up with the plant, roots and all; and two larvæ (*Sericoris*) in tops of *Galium aparine*. Found one large greenish-brownish larva on grass. (This larva died on the 24th.)

Observed that all the *Elachista* larvæ, No. 1, were crawling about the lamp glass, apparently trying to escape. Placed them in a glass jar along with the living plant. Some of the *E. Megerlclla* were found to be in pupa affixed to the leaves of the grass.

(6½—7 P. M.) Found three *Elachista* larvæ, No. 2, and two of *E. Megerlclla*.

13th. (5½—6½ A. M.) Found many larvæ of *E. Megerlclla*, and two larvæ in tops of *Galium aparine*.

Saw the larvæ mining in grass sent by J. S. to J. W. D. The mine appears different from No. 2, and it is certainly neither No. 1 or No. 3. The larvæ themselves (No. 4) are nearly allied to No. 2, but appear distinct.

(7 P. M.) Found one *Elachista* larva, No. 2. J. W. D. found several.

- Apr. 14th. ($6\frac{1}{2}$ — $7\frac{1}{2}$ P. M.) Found one larva of *E. Megerrella*, two (*Sericeoris*) in tops of *Galium aparine*. W. W. found some full fed Coleopterous larvæ in leaves of *Centaurea nigra*.
- 15th. ($5\frac{3}{4}$ — $6\frac{1}{2}$ A. M.) Found a *Noctua* larva on grass (*Orbona*? sent it to H. D.) Found a pupa under a slight spinning on an ivy leaf near a grass leaf that had been mined by *Elachista* larva, No. 2 (this pupa produced *E. rufocinerea*). Found also a few larvæ of No. 2.
- (6 — $7\frac{1}{4}$ P. M.) TRAMROAD BEYOND CROYDON. Found eight or nine *Elachista* larva, No. 5 (*E. subnigrella*), in the leaves of *Bromus erectus*?; two larvæ of *G. tringipennella*, and one larva of *L. Scabiosella*, not quite full grown.
- 16th. (6 — $6\frac{3}{4}$ A. M.) Found a few larvæ in tops of *Galium aparine*. Opened some sallow buds that looked eaten, but found nothing. Looked on the large *Carex*, but found only a *Chrysomela* and a *Chalcis*.
- 17th. HEADLEY LANE. (1—5 P. M.) Observed a Dipterous larva in *Plantago media*, and a small Coleopterous larva in *Plantago lanceolata*. Found one larva of *Col. discordella* on *Lotus corniculatus*; one of *C. aleyonipennella* on *Centaurea nigra*, and one of *Gel. Anthyllidella*? on a *Trifolium*; several larvæ of *El. subnigrella* on *Bromus erectus*? two full-fed attached to the leaf with a few scattered threads about them; several larvæ of *Col. Onosmella* on *Echium vulgare*, mostly still attached to the leaf, having apparently hibernated without detaching the case from its natural position. Found one *Elachista* larva, No. 1; one small larva of *Gr. tringipennella*, and a full-fed larva of *N. aurella*; many hibernating larvæ in stems of *Pastinaca*. J. W. D. found a *Coleophora* larva feeding on a smooth grass. The case of the larva was hairy (*Lixella*? the larva was not reared), and a small Lepidopterous larva mining down the centre of an *Echium* leaf. He also found the larva of *El. cygnipennella* mining the upper part of *Dactylis glomerata*, and an *Elachista* larva in another grass, something like No. 1, but apparently rather different.
- 19th. WIMBLEDON COMMON. (5—7 P. M.) Found a few *Coleophora* cases on seeds of rush, and found a small larva in the flowers of the *Ulex Europæus*, entering them before they were expanded, and betraying its presence by a round hole in the back of the flower (*Gel. mulinella*).
- H. D. sent me a larva from *Artemisia vulgaris* in a case something like a young shoot. He had received it from T. B.
- J. S. sent J. W. D. a further supply of his *Elachista* larvæ, No. 4.

Apr. 21st. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Found one larva of *Elachista*, No. 2; two of *Gel. rufescens*, and several of *Gel. tricolorella*; sent them to J. S. Found a few brown larvæ in the shoots of rose.

22nd. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Found three larvæ of *Elachista*, No. 2.

25th. Received from J. S. three *Elachista* larvæ, No. 6 (these were not reared), mining in the tops of the leaves of *Aira cæspitosa*, and mining the whole width of the grass leaf.

The larva of *Tortrix adjunctana*, found March 7th, changed to pupa this day.

30th. ($5\frac{1}{2}$ —6 P. M.) LANE NEAR CHARLTON. Found a largish pale grey larva between united leaves of *Medicago*. Found one larva of *Gr. tringipennella*. Found a larva in some moss in one of my cages, identical with that of January 30th (*Eudorea*?) Can it be a moss-feeder?

May 1st. (3—4 P. M.) Found small larvæ in shoots of sloe, *Arg. mendica*. Found small larvæ in shoots of hawthorn, *Arg. nitidella*. Found many larvæ of *Gel. fraternella* on *Stellaria uliginosa*. Found young larvæ of *Sciaphila* mining sorrel and knapweed leaves. Found one larva of *Elachista*, No. 2, and two of *Gel. rufescens*. Found several young larvæ in shoots of rose.

(6—7 P. M.) Found one larva of *Col. alcyonipennella* on *Centaurea nigra*. Found one dark larva, with orange stripe (this was not reared), on *Symphytum*. Found one larva (brown) in top of *Veronica Chamædrys*, and one larva in top of *Galium aparine*.

2nd. (6 — $6\frac{1}{2}$ A. M.) Found several larvæ of *Gel. fraternella*, which I sent to J. S. Observed the mines under the bark of broom of *Cemistoma spartifoliella*.

3rd. ($5\frac{3}{4}$ — $6\frac{1}{2}$ A. M.) Found one larva in top of *Galium aparine*, and one larva of *Gel. rufescens*.

5th. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Found several larvæ of *Elachista*, No. 8 (*atricomella*), in *Dactylis glomerata*. Found two larvæ of *Gel. tricolorella*.

($6\frac{1}{2}$ — $7\frac{1}{2}$ P. M.) Found several larvæ of *El. atricomella*, and about twenty larvæ of *Col. solitariella*. These had evidently not been feeding long.

6th. (6 — $7\frac{1}{2}$ P. M.) DARTFORD HEATH. Observed discoloured grass leaves, but found no larvæ, nor did they look as though they had been mined.

Received from R. S. small greenish-grey black-headed larvæ, feeding between laburnum leaves (some *Tortrix*?)

7th. Received from J. S. larvæ of *Chrysoclista Schrankella*, mining in the leaves of *Epilobium alsinefolium*.

May 8th. (4—5 P. M.) Found several larvæ in shoots of rose. On examination they mostly appeared to be *Spilonota Roborana*; but two had the head slenderer, and one of these had a peculiarly pale collar.

Examined the larvæ collected on the 1st, in hawthorn and sloe. Found in the hawthorn *Argyresthia* larvæ nearly full-fed, and some small greenish-grey black-headed larvæ, and one much paler, probably distinct. Found in the sloe the *Argyresthia* larvæ in cocoon (one in pupa, the other two in the act of spinning), and three green larvæ, with black spots (*Penthina Pruniana*?)

9th. (6—6 $\frac{3}{4}$ A. M.) Found many larvæ of *Gel. fraternella*; sent some to J. S.

(7—7 $\frac{1}{2}$ P. M.) Found fifteen larvæ of *Gel. fraternella*.

10th. (6—6 $\frac{1}{2}$ A. M.) Found twenty-five larvæ of *Gel. fraternella* and two of *G. tricolorella*.

(6 $\frac{1}{4}$ —7 $\frac{1}{2}$ P. M.) Found seventy larvæ of *Gel. fraternella* and one of *El. atricomella*.

Examined a *Coleophora* case, found the previous October on seeds of *Atriplex* (*C. annulatella*), which had been kept out of doors nearly all the winter; found in it a living larva with its head at the tail end.

11th. (6 $\frac{1}{4}$ —7 A. M.) Found tops of *Hypericum* screwed up. Took two home, but when examined found nothing.

(5—5 $\frac{1}{4}$ P. M.) Found many larvæ of *C. solitariella* on *Stellaria holostea*.

Received from R. S. more larvæ feeding between laburnum leaves. Sent him six *C. solitariella* and twelve *Gel. fraternella*.

12. (6 $\frac{1}{2}$ A. M.) Found in shoots of sloe larvæ of *Arg. mendica*, and one of the orange-banded larvæ of *A. albistria*; also a drawn-up bramble shoot containing a brown larva (*Udmanniana*).

Examined hawthorn shoots recently collected, and found larvæ of *Arg. nitidella* common; also a small greenish larva, with black head and black tail; and two brown larvæ, one sluggish (*Spilonota suffusana*?), the other active (*Gel. vulgella*?). Found some broom twigs mined by larvæ of *Cem. spartifoliella*.

(5 $\frac{1}{2}$ —7 $\frac{1}{4}$ P. M.) TRAMROAD BEYOND CROYDON. Found many larvæ of *Elach. subnigrella* and three pupæ *in situ*; also several larvæ of *Gel. Anthyllidella*. W. W. found several larvæ of *El. atricomella* in *Dactylis glomerata*, and at the root of one of these mined grasses a dirty-whitish wiry larva (*Oehsenheimeria*). He also found a pupa of *El. subnigrella* attached to a leaf of *Chrysanthemum leucanthemum*, and in a species of *Bromus*? an

May 12th. ($5\frac{1}{2}$ — $7\frac{1}{4}$ P. M.)—*continued*.

Elachista larva (No. 7, *cygnipennella*), mining the whole width of the tips of the leaf similar to No. 6.

13th ($6\frac{1}{4}$ —7 A.M.) Collected many shoots of sloe, and three shoots of dogwood; examined the former, and found several of the greenish *Argyresthia* larvæ (*mendica*), and one of the orange-banded one (*albistria*); several of the spotted green larvæ noticed on the 8th, some had the spots much less distinct than others, perhaps owing to a difference of age; found also two brown larvæ, each having a piece of *withered leaf* attached to the shoot in which they were.

(7—8 P.M.) Collected many shoots of sloe, and also a few hawthorn larvæ.

Received from J. S. a plant of *Hieracium*, in the root of which there should have been some larvæ, but could find none; also a plant of *Plantago lanceolata*, mined by a Coleopterous larva; also a leaf of *Geum*, in which there should have been a miner, which I could not find; also some *Veronica Chamædrys*, in the tops of which were two kinds of larvæ, viz. the *Pterophorus*, and a brown larva, apparently no *Sciaphila*.

14th. ($5\frac{3}{4}$ — $6\frac{1}{2}$ A.M.) Found one *Elachista* larva, No. 2, and several *Col. solitariella*, which latter I sent to J. S. Collected a few apple shoots.

Examined the shoots of dogwood collected on the 13th, and found three specimens of a lively yellowish-green larva (*Gelechia?* they were not reared). Examined the shoots of sloe collected on the evening of the 13th, and found many larvæ of *Arg. mendica*; and observed that there were distinctly two kinds of green larvæ with black spots, those with the fainter spots being much more lively larvæ; and found two single specimens of larvæ, probably distinct. Examined the hawthorn larvæ collected on the evening of the 13th, and found a greenish-grey black-headed larva (as that mentioned on the 8th), and several of the smaller larvæ, with black head and tail. Examined the apple shoots collected in the morning, and found the same yellowish-green larva, with black head and tail. Received from T. B., then at Wickham, some pieces of broom mined by the larvæ *Cem. spartifoliella*.

15th. (6— $8\frac{1}{2}$ A.M.) Collected sloe shoots (four larvæ of *Arg. albistria*); also sallow shoots, in which three sorts of larvæ, one greenish grey, with whitish warts (some *Tortrix?*), one green, with minute black spots, rather fat (*Arg. pygmaella*), the other smaller, also green, with minute black spots; perhaps the same larva, only younger. Found in the midstem of the sallow-catkins a yellowish

May 15th. (6—8½ A. M.)—*continued*.

larva (Coleopterous). Found a few larvæ of *C. solitariella*, which I gave J. W. D. ; observed a mining larva in the leaves of *Stellaria holostea*, evidently the young larva of *Gel. maculea*. Gave J. W. D. some mining broom larvæ, and he found a cocoon of *spartifoliella*, which we opened, and found the larva unchanged ; he also found an orange coloured larva on the broom.

(3—5 P.M.) Collected upwards of 250 larvæ of *Gel. fraternella*, and thirty-six larvæ of *Col. solitariella* ; found a small green larva in a shoot of bramble.

Examined the *Elachista* larvæ No. 2, and found *all* (except that collected on the 14th), *ichneumoned*.

16th. (5½—6½ A.M.) Collected thirty-one larvæ of *Col. solitariella*, one of *Arg. albistria*, and some shoots of dogwood and willow.

(5 P.M.) Collected thirty-one larvæ of *C. solitariella*.

(6½—8 P.M.) Collected twelve larvæ of *C. solitariella*, and seventy of *Gel. fraternella* ; all of which I sent to H. D.

17th. (5½—7½ P.M.) TRAM ROAD BEYOND CROYDON. Collected several larvæ and pupæ of *El. subnigrella*, in and on *Bromus erectus* ; also several larvæ of *El. cygnipennella* (J. N. W. found one) mining in the tops of *Dactylis glomerata* ; except in two instances the miners always began at the tips of the grass leaves ; I found a Dipterous pupa, of which the larva had mined the wiry grass (*Festuca?*), and J. W. D. found fine *Elachista* larvæ (No. 9), mining in that grass ; he also found one larva of *Lith. Scabiosella*, and I found a few larvæ of *Gel. Anthyllidella*.

Received from R. S. fifty larvæ of *C. alcyonipennella*, and 200 of *C. discordella*.

18th. (5¾—6½ A.M.) Collected twenty larvæ of *Col. solitariella*, and three of *Gel. rufescens*, which I sent to R. S.

J. W. D. brought a case-bearer (the case formed like a rush-seed), found by G. A. A. on fine grass, also Dipterous and Hymenopterous larvæ in the sand-grass, from the neighbourhood of Birkenhead. J. J. W. brought larvæ of *Gly. equitella*, feeding in the shoots of *Sedum acre*. W. W. brought larva of *Dep. conterminella* (black head, and behind the head and tail), and another larva, with pale head, from osier, and two larvæ on elm.

19th. (5½—6½ A.M.) Found an *Elachista* larva (No. 10), in *Dactylis glomerata*, mining differently from (No. 8), *atricomella*, having a tubular mine, and the excrement in grains at the bottom. Collected several shoots of dogwood, and found a larva on the top of *Veronica Cham*

May 19th. ($5\frac{1}{2}$ — $6\frac{1}{2}$)—*continued*.

mædrys, and several *Gel. rufescens*. Found one greenish, rather hairy larva, with black head and collar, on *Euonymus* (*Tortrix pyrastrana* ♀).

($6\frac{1}{2}$ — $7\frac{1}{2}$ P.M.) Collected several tops of *Veronica Chamædrys*, from which I obtained 2 *Pter. fuscus* larvæ, small, several *Sciaphila* larvæ, and two other kinds of larvæ. Collected shoots of bramble, and obtained several of the sluggish brown larvæ (*Udmaniana*), and two or three of a small green larva (this was not reared). Found Dipterous miners in the fine grass (*Festuca*?) Found one larva of *Gel. Mouffetella*, and observed several young larvæ of *Cer. Xylostella*; obtained a greenish larva between united rose-leaves.

20th. Received from C. J. R. J. several leaves of *Plantago lanceolata*, containing pupæ of *Gra. tringipennella*, and a few larvæ of *Col. discordella*. Received from W. W. some purplish-brown larvæ off pear (*Gel. nanella*).

(6 — $7\frac{3}{4}$ P.M.) DARTFORD HEATH, at the hollow. Collected 5 cases of *Col. pyrrhulipennella*, attached near the tops of the heath, one on *Calluna*, the others on *Erica*.

21st. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A.M.) Collected twenty larvæ of *Gel. fraternella*, and one *C. solitariella*, which (with seven additional of the latter), I sent to C. J. R. J. Found one larva of *Pt. fuscus*, and one larva in bramble shoot.

($6\frac{1}{2}$ —8 P.M.) Collected many larvæ of *Gel. rufescens*, and a small green (*Noctua*?) larva on grass, under rose; also some green larvæ in apple leaves.

22nd. (6 — $8\frac{1}{2}$ A.M.) Collected several young larvæ of *Dep. Weirella*, on *Anthriscus*; one young larva of *D. Hypericella* on *Hypericum*; several shoots of dogwood and bramble; several larvæ in apple leaves; a young larva of *El. Megerella*, in a leaf of *Melica uniflora*? Observed several leaves of a *Poa*? recently eaten by *Elachista* larvæ (No. 10), and found one apparently new *Elachista* larva (this was not figured, nor was it reared); collected several larvæ of *Gel. rufescens*. J. W. D. found a small larva, with numerous short bristles, on grass (this was not reared); he also found a fat green larva (*Nonagria*?) feeding in the stem of a grass.

(3—5 P.M.) Collected several larvæ in shoots of sloe, and several of *Gel. rufescens*; found some of the much-spotted larvæ of the sloe spinning up in the shoots.

Examined many of my previously-collected larvæ; the larvæ of *Gel. mulinella*, April 19th, seemed about full-fed and preparing to spin; the larvæ of *Argy. mendica* and *albistria* had all made their cocoons; the brown larva

May 22nd. (5 P. M.)—*continued*.

of the sloe was well fed up, but not changed; the little-spotted larva of the sloe still actively feeding; one of the sloe larvæ recently collected was grey, with a black head; one larva of *Arg. pygmaeella* had commenced its cocoon; three sawfly larvæ varying in colour, but with very distinct black spots, and a pale faced sawfly larva, were still feeding. The *Elachista subnigrella* had all either changed to pupæ, or were ichneumonised; several were in the latter predicament.

23rd. (6—7 A.M.) Collected a few larvæ of *Gel. fraternella*.

(6—7 $\frac{3}{4}$ P.M.) WEST WICKHAM WOOD. Collected *Coleophora nigriceella*? larvæ on birch, in straight cases, having recently quitted the curved ones, and a Coleopterous mining larva in birch leaves, apodal, and making linear excrement. Found two larvæ of *Tiseheria marginea*; and a blackish larva (*Serieoris*) in a doubled-up leaf of *Scabiosa succisa*; observed many leaves of *Fragaria vesca*, eaten as though by *L. prælatella*, but found no larvæ; found one larva of *Col. viminetella*; found several small geometric larvæ feeding on ash, which I sent to H. D.

Received from A. B. pupæ of *Arg. Goedartella* on bark of birch.

24th. Received from T. B. some miners in beech leaves, apparently Coleopterous; they make *spherical cocoons inside the leaves*.

(6 $\frac{1}{2}$ —7 $\frac{3}{4}$ P. M.) Collected several larvæ of *Gel. rufescens* and *fraternella*; three larvæ of *C. anatipennella*, on sloe; and one green larva, on grass, eating the grass leaf half through.

The *C. pyrrhulipennella* larvæ, collected on the 20th, were observed to be crawling about.

25th. (5 $\frac{1}{4}$ —6 $\frac{1}{2}$ A.M.) Collected several larvæ of *Gel. rufescens*, one of *El. atricomella*, and some young larvæ of *C. fuseedinella*, on elm, *still* in their curved cases.

Received from F. G. several larvæ of *Gel. mulinella*, from furze blossoms. Received from J. W. D. (who was at Mickleham yesterday) two leaves of *Centaurea scabiosa* that had been eaten by a *Coleophora* larvæ (*conspicuellæ*?). Received from J. S. some larvæ on *Stellaria (uliginosa*?), which I thought were onisciform, and probably a *Polyommatus*, they proved Coleopterous; also some larvæ (No. 8?) mining in flat stemmed grass (*Dactylis glomerata*); also two larvæ (No. 12, *El. albifrontella*) that had been mining in *Aira cæspitosa*, but which had quitted the grass, one being affixed to the lid of the tin; also a conspicuous black larva, with white spots (*Tortrix ieterana*).

May 25th. W. W. brought various larvæ off sallow, viz. two of a clear yellow larva, with pale brown face (from Mickleham, *Hypermercia augustana*); one grey larva, with white warts and spotted face; one spotless black-faced larva (from near Leatherhead), and one black-faced larva, with small spots.

26th. ($7\frac{1}{2}$ — $8\frac{1}{2}$ P. M.) Found several larvæ of *Gel. rufescens*; found some *Cornucopia* cases on trunk of oak—these certainly appear to be the insect figured by Réaumur—the third pair of legs are elongated, being situated on a common process. Saw no larva of *Chauliodus Chærophyllellus*.

29th. Found that some of the *Gel. rufescens* and many of the *fraternella* were in pupa; many of the *C. discordella* appeared fed up; a brown larva of the sloe had changed to pupa; and a *Glyph. equitella* inside a leaf of *Sedum acre*. The larvæ of *Hip. augustana* brought by W. W. on the 25th had begun to spin. (7 P. M.) Collected one larva of *C. lutipennella*, on oak; one *C. anatipennella* and two *C. nigricella*, on sloe; many larvæ of *Spi. roborana*, in rose shoots.

30th. (6— $7\frac{1}{2}$ P. M.) DARTFORD HEATH. Collected some larvæ of *Gel. mulinella*, in flowers of broom; and some brown, black-faced, pale-necked larvæ (*D. atomella*?), also in flowers of broom; and one brown, black-faced larva (*D. costosa*?), between united leaves of broom.

Received from J. S. several larvæ feeding on grass, viz. two fat green larvæ (*Nonagria*?), one active brown larva, with pale incisions, feeding in the roots of grass; also three or four larvæ of No. 12, *El. albifrontella*, mining in *Aira cæspitosa*; and two larvæ of a new sort (No. 13) mining the same grass, and closely allied to No. 10.

31st. (7— $7\frac{1}{2}$ P. M.) Collected several larvæ of *Gel. rufescens*, and some of *Dep. liturella*; found a half-grown larva of *Gel. Mouffetella*, which I sent to F. G.

June 3rd. ($6\frac{1}{2}$ —8 P. M.) Collected many larvæ of *Gel. rufescens*, which I sent to J. S.; found a pale-faced green larva on *Salix alba*.

4th. (6—7 A. M.) Found a case-bearer (*Col. cæspititiella*) on last year's rush-seeds.

Received from J. S. some dark-grey black-spotted larvæ, feeding in moss, in tubular galleries (*Eudorea murana*).

5th. Received from F. G. a larva on *Artemisia*, apparently a *Scia-phila*.

(6— $7\frac{1}{2}$ A. M.) Collected two larvæ of *Dep. Weirella*? two larvæ of *Col. viminetella* (saw many places where they

June 3rd. (6—7½ A. M.)—*continued*.

had been); also a few larvæ of *Orthotælia Sparganellus*, mining in, or burrowing between the leaves of *Sparganium ramosum*.

(4—5 P. M.) Collected two or three larvæ of *D. Weirella*? and several larvæ of *Col. viminetella*.

(7—8 P. M.) Collected several larvæ of *Gel. Mouffetella*, which I sent to C. J. R. J. on the 8th.

6th. Received from H. D. numerous larvæ of *Gel. lentiginosella*, in the shoots of *Genista tinctoria*; and from F. G. some larvæ of *C. hemerobiella* and *nigricella*, on pear, and of a *Sciaphila*, on *Medicago maculata*?

7th. Received from C. J. R. J. larvæ of *C. fuscedinella*, on elm; *nigricella*, on apple; and *troglydytella* on *Eupatorium* and *Inula*; also some pupæ (*Laverna ochraceella*), of which the larvæ had mined the leaves of *Epilobium hirsutum*. Received from J. S. an *Elaehista* larva (No. 15), mining the upper part of the leaves of a *Carex* (this unfortunately was not reared).

8th. (8 P. M.) Found a few larvæ of *Gel. rufescens*, which I gave J. W. D.

9th. (7½—8½ P. M.) Found two full-fed larvæ of *Pter. pentadactylus*, and cases of *C. nigricella* attached to leaves of *Convolvulus arvensis*; sent them to J. S. W. W. found a pupa attached to a leaf of *Carex*, but no appearance of any mine.

10th. (7—8 P. M.) Found three larvæ of *D. Weirella*? and a few of *Gel. maculea* and *rufescens* (of the latter, one in pupa); collected *Hypericum* heads, and found in them four larvæ *Hypericana*? five *Hypericella*? and some *Sciaphilæ*.

11th. (5½—6½ A. M.) Collected *Hypericum* heads, sent some to J. S. Found a larva mowing grass, in a marshy place, eating about an inch of each stem near the ground, the upper part of the grass withered, and was frequently quite detached from the root.

(5—6¼ P. M.) Visited J. J. W., who had just returned from from a fortnight at Pembury; saw numerous larvæ he had collected there, viz., larvæ of *Pter. ochrodaetylus*, burrowing in the stem of *Achillea ptarmica*; larvæ of *P. lithodaetylus*, *Rös. granitella* and *Col. troglodytella*? on *Inula dysenterica*, the latter species also? on *Eupatorium*; larvæ of *Gelechia lentiginosella*, on *Genista tinctoria*, and an inhabited case of *Col. Woekeella* attached to the stem of that plant; a cocoon (very early) of *Cer. Xylostella*, and a lively, slender, black-brown larva, on honeysuckle. I found in his garden a full-fed larva of *Glyph. equitella*, on an emptied leaf of *Sedum acre*.

June 12th. (5.50—9 A.M.) Collected one larva of *Dep. Weirella*? one *Gel. Mouffetella*, one larva and one pupa of *Pt. fuscus*; several larvæ of *D. Hypericella* and *Gel. rufescens*.

(4 P. M.) Collected several larvæ of *Gel. Mouffetella* on honey-suckle at the porch.

(6½—8 P. M.) Collected many larvæ of *Gel. rufescens* and two of *Col. viminetella*.

Examined larvæ previously collected, and found that the greater part of the *C. alcyonipennella* and *solitariella* appeared to be fed up.

14th. (5½—7 A. M.) Collected a few cases of *Col. cæspititiella* on old rush seeds, and found a dead pupa at the base of a devoured ash-shoot; also two larvæ of *C. viminetella*.

(7—8¼ P. M.) Collected two larvæ of *Dep. Weirella*? three *Gel. rufescens*, several *Orthotelia Sparganella*, two pupæ and saw one larva of *Pt. fuscus*. Found on bramble, under a turned down corner of leaf, one pale-yellow, pale-faced larva. Found one larva of *Rös. pygmæana* in a leaf of *Solanum dulcamara*.

15th. Received from J. S. a much larger specimen of the brown larva, with paler incisions (of May 30th), apparently the larva of some *Noctua*.

16th. (5—6 A. M.) Collected two or three pupæ of *Laverna ochraceella* in cocoons in the lower leaves of *Epilobium hirsutum*, and one larva of *Col. viminetella*.

(6½—8½ P. M.) Collected eight pupæ of *L. ochraceella* (W. W. collected thirty) in leaves, principally green ones of *Ep. hirsutum*.

17th. (5½—6½ A. M.) Collected one pupa of *L. ochraceella*.

(5¾—8 P. M.) SANDERSTEAD DOWNS. Collected several Coleopterous mining larvæ in leaves of *Helianthemum vulgare*, and two larvæ of *Gel. sequax* in tops of that plant; also several larvæ and pupæ of *Ypsolophus marginellus* on the junipers. The perfect insects of three species of *Elachista* (*Bedellella*, *cinereopunctella* and *Gleichenella*) were flying among the long grass by the palings, and one of the grasses there appeared to have had the upper part mined by a larva.

18th. (5—6 A. M.) Collected four or five pupæ of *L. ochraceella*.

6½—8½ P. M.) Collected many larvæ of *Gel. rufescens* and one pupa of *L. ochraceella*.

June 19th. (6—8 A. M.) Collected thirty-two pupæ of *L. ochraceella*.

The larva of *A. pygmæana* collected on the 14th had already made its cocoon.

20th. (6—7 A. M.) Collected a few pupæ of *L. ochraceella*.

(5 P. M.) Found one larva of *A. pygmæana*.

- June 20th. (7—8 P. M.) Collected three pupæ of *L. ochraeeella*.
- 21st. (6—7 A. M.) Collected a few pupæ of *L. ochraeeella*.
(7—8 P. M.) Collected a few larvæ and pupæ of *Col. lineolea* on *Ballota nigra*.
- 23rd. AT BOX HILL. (6½—8 P. M.) Collected three cases of *C. Onosmella*. Found the *Nepticula* (!) of the *Teucrium* was *Coleopterous*, and also mining in leaves of *Origanum*. Some elm leaves were picked at Sutton with the large *Coleophora* of the elm (*limosipennella*?)
- 24th. (7—8½ P. M.) *Hilly field at Headley Lane*. Found one larva of *C. aleyonipennella*, and observed a Dipterous larva in leaves of *Echium*. Found several larvæ of *Gel. acuminatella*. Leaves of *Clematis vitalba* had been mined either by a Dipterous or a *Nepticula* larva.
- 25th. The Society's Excursion. W. W. and J. W. D. found some leaves mined by *Lith. Faginella*, and also some empty *Nepticula* mines on the beech.
- 26th. (9½ A. M.—1 P. M.) *Box Hill*. Collected upwards of twenty larvæ of *Nep. Tityrella* in beech leaves; also three cases of *Col. Onosmella*, and some small mining larvæ (certainly Lepidopterous) in the leaves of *Origanum*. Found one larva of *Gel. acuminatella*.
(3—4 P. M.) *Headley Lane*. Observed a Coleopterous miner in leaves of *Stachys*. Found two larvæ of *C. aleyonipennella*. Found two kinds of mines in birch leaves; one an oblong blotch (between two ribs, and not reaching the margin), from which the larva had escaped at the upper side of the leaf; the other marginal, and of which the larva cuts out a circular case; the larva, however, appears Coleopterous. Found a small mining larva in leaf of *Centaurea*; in its mine resembling *Dep. propinquella*.
- 27th. (6—6½ A. M.) *Box Hill*. Collected five larvæ of *Nep. Tityrella*.
(7—8 P. M.) Collected several larvæ of *Nep. Tityrella*.
LEFT BOX HILL.
- 30th. (5½—7 A. M.) Collected several larvæ of *Nep. Malella* in apple leaves, and another *Nep.* larva making blotches in the apple leaves.
- RETURNED TO BOX HILL. (7—8 P. M.) Collected three larvæ of *Nep. Tityrella* on the beech, and a few of the Lepidopterous miners of the *Origanum*.
- July 1st. (6—7 A. M.) *Box Hill*. Collected five larvæ of *N. Tityrella*.
2nd. (7—8 P. M.) *Hilly field, Headley Lane*. Collected several *Nepticula* larvæ off the beech (*Tityrella*?)

July 2nd. S. S. showed me a larva-case of *Col. conspicuella* on *Centaurea scabiosa*.

3rd. (7—8 P. M.) *Headley Lane*. Found several larvæ (rather fusiform) on the *Origanum*, near the top, with a slight web; they were not lively (*Pyrausta punicealis*). Found a dark dull green larva on *Centaurea scabiosa*, apparently a *Depressaria*. (This larva was figured, and went into pupa, but died in that state.)

LEFT BOX HILL.

5th. More of the large *Coleophora* (*limosipennella*?) of the elm were collected at Sutton.

Received from R. S. larvæ of *Eudorea lineolea* feeding on the lichen growing on sloe bushes. Received from C. S. G. larvæ of *Gel. pernigrella* on sallow.

6th. (7—8 P. M.) Collected a few larvæ of *N. Malella*, and of the blotch-mining larvæ of the apple, and gave T. B. two larvæ of *N. Catharticella*.

7th. W. W. found larvæ of *Alucita polydactyla* in the buds of honeysuckle, and a mining larva making brownish blotches in the leaves of honeysuckle.

(7—8 P. M.) Collected larvæ of *Nep. Malella*, the blotch *Nep.* of the apple and *N. anomalella*. Gave W. W. a larva of *N. Catharticella*.

W. W. found a *Gelechia*? larva on oak (not *triparella*), and several *Lithocolletis* larvæ on oak and sloe.

8th. (7—8 P. M.) Found several larvæ of *Alucita polydactyla*, and of the leaf-miner of the honeysuckle.

9th. (7—8½ P. M.) Collected several *Ornix* larvæ on the sloe, both young and old; also several of *Nep. plagicolella*.

10th. (3½—5 P. M.) Collected larvæ of *Nep. Malella*, of the blotch apple *Nep.*, of *N. anomalella*, of gallery *Neps.* of the oak, of the hawthorn several yellow and two green, and of *N. Catharticella*; also twenty of the honeysuckle leaf-miner, and a miner in oak leaves (*Tis. complanella*?), and two of *Lith. corylifoliella* on the upperside of hawthorn leaves.

11th. (6½—8 P. M.) DARTFORD HEATH. Collected many larvæ of *Gr. omisella*, some of small size and some which had left the leaves. Found on hawthorn an *Ornix* larva, a *Lithocolletis* pupa (*tristrigella*), and a *Swammerdamia* larva. Observed broom leaves mined by a Dipterous? larva.

12th. (6—7½ P. M.) Found blotch miners of the *Cornus* of various sizes; some had already quitted the leaves. Found one of the leaf-miners of the honeysuckle, and several larvæ of *Ornix Avellanella*. Observed the young larvæ of *Lith. Coryli*.

July 13th. ($5\frac{3}{4}$ — $6\frac{3}{4}$ A. M.) Collected several larvæ of *Nep. plagicolella*, and *Ornix* larvæ on sloe, and observed the young larvæ of *C. paripennella* feeding.

Received from T. B. larvæ of *Laverna* *Epilobiella*, and one larva in an *Ulex* pod; also many pods in which larvæ had been. W. W. brought a gooseberry with a larva in it (*Grossulariella*?)

15th. (7— $8\frac{1}{2}$ P. M.) Collected many larvæ of *Ornix Avellanella*, *Nep. anomalella*, *oxyacanthella*? one *floslactella* and two *microtheriella* (from nut).

16th. (6—7 A. M.) Collected three or four larvæ of *C. limosipennella*? on elm, and a *Nep. marginicolella* in cocoon inside the leaf.

($6\frac{1}{2}$ —8 P. M.) Collected two blotch miners of the *Cornus*, a gallery *Nepticula* larva off oak, a blotch miner off oak, and several larvæ of *Ornix Avellanella*.

17th. (6—8 A. M.) Searched for *Nepticulæ* of the hornbeam; found a few leaves where they had been both large and small, but found no larvæ. Saw elm leaves that had been mined by *N. marginicolella*. Collected several larvæ of *Ornix Avellanella*.

(4, 5 and 6— $7\frac{1}{2}$, P. M.) Collected many *Nepticula* larvæ; *Catharticella*, *anomalella*, oak (large), hawthorn (two green, several yellow). Looked for the clumsy-tailor larva (which takes for its case an entire leaf of hawthorn), but found none.

18th. ($5\frac{3}{4}$ — $6\frac{3}{4}$ A. M.) Collected many larvæ of *Nep. plagicolella*, some young larvæ of *C. paripennella*, one clumsy-tailor larva on hawthorn, some *Ornix*, *Nepticula*, and *Lith. Corylifoliella* larvæ on hawthorn.

(7— $8\frac{1}{2}$ P. M.) Collected *Nepticula* larvæ; *anomalella* (saw none of the blotch miner of the rose), and two or three hawthorn; several of the leaf-miner of the honeysuckle.

19th. ($5\frac{3}{4}$ — $6\frac{3}{4}$ A. M.) Searched in vain for *Nepticulæ* of the elm, found only two leaves that had been mined by *N. marginicolella*.

($6\frac{1}{2}$ —8 P. M.) Collected many larvæ of *N. Catharticella*, a few of *N. anomalella*, and two of the yellow hawthorn *Nep.* Found several larvæ of *Depressaria Chærophylli* feeding on the flowers and seeds of *Chærophyllum temulentum*.

20th. ($5\frac{1}{4}$ — $6\frac{1}{2}$ A. M.) Collected twenty larvæ of *D. Chærophylli*, and one pupa also in the umbel of *C. temulentum*, and one yellow *Nep.* of the hawthorn.

- July 21st. (6—6½ A.M.) Collected a few pupæ of *Nep. anomalella*.
 Observed that three of my larvæ of *Col. limosipennella*? were attached to the stem of the elm twig.
- (5 P.M.) Collected three larvæ of *C. limosipennella*? and observed several leaves that had been mined by *Nep. marginicolella*.
- (6½—8 P.M.) Collected ten of the miners of the dogwood, three yellow *Nep.* larvæ of the hawthorn, two *N. plagi-collella*, a few *N. floslactella* and *microtheriella* on the nut, and observed many nut-leaves that had been mined; searched on sallows, and found several leaves where *Nep.* larvæ had been; collected a few larvæ of *Lith. salicicollella* and *spinicolella*, and a few of *Ornix Avellanella*.
 Received from J. N. W. some *Nepticula* larvæ of the birch.
- 22nd. (6—6¾ A.M.) Collected five larvæ of *Dep. Chærophylli*, and many larvæ of *Nep. Catharticella*.
- (6—8 P.M.) WEST WICKHAM WOOD. Collected one large and three small *Nepticula* larvæ off birch; a few larvæ of *Lith. ulmifoliella*, one of a *Lith.* on willow, and one *L. aluifoliella*. Found a rush-stem that was mined by the larva of a saw-fly.
- 23rd. (5½—6¾ A.M.) Collected three larvæ of *Nep. floslactella*, and five of *microtheriella*, on hornbeam.
- (6½—8½ P.M.) Collected two larvæ of *N. floslactella*, and many of *microtheriella*, on nut.
- 24th. (6—8 A.M.) Collected two larvæ of *N. floslactella*, and many of *microtheriella*, and a *Coleophora* larva on hornbeam. Found four larvæ of the dogwood miner.
- (3—5 P.M.) Collected several *Nepticula* larvæ (large) from oak, a few pupæ of *N. anomalella*, and many hawthorn *Nepticulæ*, which I was able to divide thus: 1°. a bright green larva (*N. Oxyacanthella*); 2°. a brightish yellow larva in a contorted mine, near the base of the leaf (*N. pygmæella*?); 3°. a yellowish-green larva (nearly intermediate in colour between the other two), with a mine of which the commencement had been long and serpentine, ultimately more of a blotch, near the tip of the leaf (*N. ignobilella*? or *gratiosella*?); 4°. a small greenish larva, with a black spot behind the head, very distinct, which none of the other three possess (this was the young mining larva of *Bucculatrix Cratægi*); found one larva of the clumsy-tailor, and one *Ornix* larva on hawthorn.
- 25th. (5—6 A.M.) Collected a few larvæ of *N. Oxyacanthella* and *Buc. Cratægi*, from hawthorn, and one *Nep. (Mallella*?) off apple.

July 25th. (6½—8 P.M.) Collected several larvæ of *Buc. Cratægi*, five *N. Oxyacanthella*, and four yellowish *Nep.* larvæ of the hawthorn, also one large oak *Nep.*, and one apple *Nep.* making a gallery (*Malella*?), and a few larvæ of *Lith. Corylifoliella*.

26th. (6½—8 P. M.) Collected several larvæ of *Buc. Cratægi*, two *N. Oxyacanthella*, and two yellowish? *Nep.* of the hawthorn, and one pupa of *G. arroguttella*.

Received from R. S. a few larvæ of *Nep. Acetosæ*, two birch leaves that had been mined by a large *Nep.*, and an alder leaf mined in a very peculiar way; also three *Gracilaria* larvæ (*elongella*), in alder leaves rolled up longitudinally.

27th. (5¾—6¾ A.M.) Found two larvæ of *Gel. costella* on *Solanum dulcamara*, three of *N. plagicolella*.

Received from C. M. S. larvæ and pupæ of *Cemi. Laburnella*.

28th. (7—8 P.M.) Found a few *Nepticula* larvæ on hawthorn, one half-grown external-feeding larva of *Buc. Cratægi*.

30th. (6¾—8 P.M.) Collected many mining larvæ and cocoonets, and one external feeding larvæ, of *Buc. Cratægi*; also five larvæ of *N. Oxyacanthella*, and one yellowish hawthorn *Nep.* Observed a dipterous larva in a blotch on the underside of a willow leaf.

31st. (4—5 P.M.) Collected two of the dogwood miner; searched elms in vain for larvæ of *C. limosipennella*?

(7—8 P.M.) Collected several *Nep.* larvæ on hawthorn, and found on an elm leaf a cocoonet, similar to that of *B. Cratægi*.

Aug. 2nd. (7—8 P.M.) Collected a few *Ornix* larvæ on hawthorn.

3rd. (5½—6½ A.M.) Collected a few *Ornix* larvæ on nut (*Avellana*), and *Lith. spinicollata*, on sloe.

4th. (5—6 A.M.) Collected several larvæ of *Nep. Oxyacanthella*, one of *N. Cathartica*, and a few larvæ of *Ornix* and of *L. corylifoliella*, off hawthorn.

(7—8 P.M.) Collected *Ornix* larvæ on the birch (*Betula*); one dogwood-miner. Found on elm a white cocoonet, as where a *Bucculatrix* larva casts its skin, and three empty mines, as of *Bucculatrix* larvæ. W. W. found Coleopterous and Dipterous larvæ in heads of *Matricaria Chamomilla*.

5th. (4¼—4½ A.M.) First white mist. Collected three larvæ of *Nep. Cathartica*.

J. W. D. showed me larvæ of *Elachista cerusella* he had found the preceding day, mining in the leaves of *Arundo phragmites* in the Greenwich marshes. Received from

Aug. 5th.—*continued.*

T. B. a case (*Coleophora albicosta*?) found by him at Lyndhurst, on the pods of *Ulex*.

7th. ($6\frac{1}{2}$ —8 P.M.) AT DAWLISH. Collected larvæ of *Lith. alni-foliella*, *Ornix Avellanella*, and nut leaves that had been mined by *Nep. floslactella* and *microtheriella*; observed the heads of an umbelliferous plant (*Ænanthe crocatum*?) drawn together as though it had been eaten by a *Depressaria* larva; collected larvæ of *La. Epilobiella*.

8th. (8— $10\frac{1}{2}$ A.M.) Collected various *Nepticula* larvæ, *anomal-ella*, *microtheriella* (on nut, and saw mines of it on horn-beam), large oak, willow (*Salicis*?); saw mines of *aurella*, *Tityrella*?, *plagicolella* and *marginicolella*; collected *Lithocolletis* larvæ, *Schreberella*, *Faginella*, and many *viminiella* and *trifasciella*. Collected birch, hawthorn, sloe and nut leaves turned down by *Ornix* larvæ; found on willow an empty cocoon, and deserted cone of *Grac. stigmatella*; found one leaf-miner of the honeysuckle (as that of July 7th), and observed another leaf that had been mined. Found ash leaves rolled up by larvæ of *Gr. Syringella*; found bramble leaves mined by *Tischeria marginea*; found two *Noctua* larvæ in capsules of *Silene inflata*. Observed Dipterous larvæ in leaves of *Lychnis dioica*.

LEFT DAWLISH.

9th. ($7\frac{1}{4}$ —8 P.M.) Looked on hawthorn, found many empty cones of *Ornix*, and a few larvæ of *N. Oxyacanthella*, and one yellowish *Nep.* larva. R. C. R. J. found two pupæ of *Tis. marginea*.

10th. ($5\frac{1}{2}$ — $6\frac{1}{4}$ A.M.) Collected on hawthorn *Ornix* cones, larvæ of *Nep. Oxyacanthella*, and of *Buc. Cratægi*.

R. C. R. J. collected *Lithocolletis* pupæ on *Pyrus torminalis*, also pupæ of *L. Cramerella* and *sylvella*, and larvæ of *La. Epilobiella*. J. W. D. brought a new *Elachista* larva (No. 17, in *Sparganium*?) found at Greenwich Marshes.

11th. ($7\frac{3}{4}$ — $8\frac{1}{2}$ P.M.) Went in search of *Lithocolletis* pupæ on *Pyrus torminalis*, found none.

12th. (6—7 A.M.) Searched for *Lith.* pupæ on *P. torminalis*, without success.

($5\frac{1}{4}$ —8 P.M.) TRAM-ROAD, BEYOND CROYDON. Collected (four of us) 276 larvæ and pupæ of *Lith. Scabiosella*, a few larvæ of *Gel. Anthyllidella*, two pupæ of *Gr. tringipennella*, and found some leaves of *Origanum* that had been eaten by the Lepidopterous miner.

- Aug. 13th. (7—8 P.M.) GREENWICH MARSHES. Found several larvæ of *Elachista cerusella* in leaves of *Arundo phragmites*, and also of *Elachista* No. 17, in leaves of ———? J. W. D. gave me a full-fed larva of *Dep. propinquella* from *Cirsium lanceolatum*.
- 14th. (3—5 P.M.) Found a few larvæ of *Lith. emberizæpennella*, *Tis. marginca* and *Buc. Cratægi*.
- 15th. (6—7 P.M.) Found a few larvæ of *Ornix*, on sloe. R. C. R. J. found a *Depressaria* larva (*propinquella*) on the underside of a leaf of *Cirsium palustre*.
- 16th. J. W. D. gave me larvæ of *Cemi. scitella*, on mountain ash, from Wickham; and *Gelechia* larvæ (*instabilella*?), on *Salicornia* and *Chenopodium maritimum*, from Brighton.
- 17th. (5 P.M.) Found several larvæ of *Acro. pygmæana*, on *Sol. dulcamara*.
- 19th. (6—7 P.M.) Collected larvæ of *N. Oxyacanthella* and yellowish *Nep.* larvæ, on hawthorn; several larvæ of *Buc. Cratægi* and one *N. aurella*.
- 20th. (6—7 P.M.) Collected *Nepticula* larvæ, on hawthorn; several *Oxyacanthella*, and two yellowish.
- 21st. (6—7 P.M.) Found one larva of *Nep. aurella*.
- 22nd. (5 P.M.) Found several larvæ of *Acro. pygmæana*.
- 23rd. (5 P.M.) Found several larvæ of *Acro. pygmæana*.
J. W. D. brought some larvæ of *Buc. Frangutella* he had found on *Rhamnus frangula*, in a little wood beyond Bromley. The young larvæ mine in concentric circles, then make a cocoonet (in which they cast their skins) on the underside of the leaf.
- T. B. sent me two *Coleophora* larvæ, from alder, the cases similar to those of *C. limosipennella*?
- 24th. S. J. W. sent me larvæ of *Incurvaria muscalella* and *pectinea*, feeding on beech.
- 25th. (7—7 $\frac{3}{4}$ A.M.) Observed that the hop-leaves began to be marked by the larvæ of *Cosmopteryx Drurella*.
(7 P.M.) Collected two larvæ of *Chauliodus Chærophyllellus*, on *Torilis*.
- 27th. (7 P.M.) Collected about a dozen larvæ of *Ch. Chærophyllellus*, on *Torilis*; none on *Sison*.
Received from W. W., at Southwold, two larvæ of *Senecio Jacobæa* (one apparently *Homœosoma nimbella*).
- 28th. (4 P.M.) Found a few larvæ and pupæ of *Tischeria marginea*.
(7 P.M.) Collected about thirty larvæ of *Ch. Chærophyllellus*, on *Torilis*.
- 29th. (5 P.M.) Found two larvæ of *Acro. pygmæana*.

Aug. 29th. (7 P. M.) Collected about twenty larvæ of *Ch. Chærophyllellus*.

30th. (5—6 A. M.) Collected about a dozen larvæ of *Chau. Chærophyllellus*.

(6—7 P. M.) Collected about thirty larvæ of *C. Chærophyllellus*, many of them on *Heracleum sphondylium*.

31st. (5—6 A. M.) Collected fifty larvæ of *C. Chærophyllellus*.

Sept. 1st. (5—6 A. M.) Collected fifty larvæ of *C. Chærophyllellus*, on *Torilis*, and two on *Sison Amomum*.

Received from P. C. Z., Glogau, a box of *Poly. hydropiper*, with larvæ of *Gr. phasianipennella*, which set to work immediately on some fresh food, and cut up their rolls very cleverly.

2nd. (5—6 A. M.) Collected fifty larvæ of *Chau. Chærophyllellus*, about half on *Sison* and half on *Torilis*.

3rd. (5—6 A. M.) Collected seventy-eight larvæ of *Chau. Chærophyllellus*, which I gave to J. W. D.

4th. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Collected twenty-seven larvæ of *Ch. Chærophyllellus*.

($3\frac{1}{2}$ —5 P. M.) Collected fifty larvæ of *C. Chærophyllellus*.

($6\frac{1}{2}$ P. M.) Collected twenty larvæ of *C. Chærophyllellus*.

Received from R. S. two sloe leaves, mined by a *Nepticula*, not in a blotch.

5th. ($6\frac{1}{2}$ —7 A. M.) Searched in vain for *Nepticula* larvæ on *Geum*.

(5 P. M.) Collected nineteen larvæ of *Acro. pygmæana*.

(7 P. M.) Collected four larvæ of *A. pygmæana*, some hop leaves with larvæ of *Cos. Drurella* (and gave these, with twenty of *C. Chærophyllellus*, to S. J. W. at Ent. Soc.)

7th. ($5\frac{3}{4}$ — $6\frac{1}{2}$ A. M.) Collected seven larvæ of the blotch-miner of the dogwood.

8th. (5—6 A. M.) Collected three or four larvæ of *Gel. næviferella*, on *Atriplex*.

9th. (5— $5\frac{1}{2}$ A. M.) Found one *Ornix* larva on sloe, and observed several mines of the young larvæ of *Tis. complanella*.

(8 A. M.) Found a larva of *Thyatira derasa*, on bramble.

10th. (6—7 P. M.) Collected a few larva of *Gel. næviferella*, on *Atriplex*.

11th. ($6\frac{1}{2}$ —8 A. M.) Collected several larvæ of *A. pygmæana*.

(3—5 P. M.) Collected several larvæ of *Enicostoma lobella*, and young *Ornix* larvæ, on sloe, and three larvæ of *Nep. aurella*, on bramble.

12th. (5 P. M.) Collected several larvæ of *A. pygmæana*.

Sept. 12th. Saw J. W. D., and his captures of the 11th, at Wickham, viz., larvæ of *Lam. prælatella*, on *Geum urbanum* and *Fragaria vesca*; and *Nepticula* larvæ, in leaves of *Potentilla fragariastrum*.

13th. (5 P. M.) Collected three larvæ of *A. pygmæana*.

Received from J. S. two new *Coleophora* cases; a vandyked one, which had probably fed on the seeds of a *Luzula*, and a *viminetelli*-form case off birch.

14th. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Found two larvæ of *Nep. aurella*.

15th. (6—7 A. M.) Collected two larvæ of *Simaëthis pariana* (supposed at the time to be *Swam. cæsiella*), off hawthorn; one of *Col. paripennella* and several *Ornix* larvæ, off sloe; gave T. B. larvæ of *Cemi. scitella*, *Eni. lobella*, and one of *Nep. plagicolella*.

(6—7 P. M.) Collected many larvæ and pupæ of *Gr. auroguttella*.

16th. (6—7 A. M.) Collected larvæ of *Gel. scriptella*, and several larvæ of the dogwood-miner.

17th. ($6-6\frac{3}{4}$ A. M.) T. B. found two or three *Ornix* larvæ on birch, and I found some small green (*Tortrix*?) larvæ feeding under the leaves of willow.

(6— $6\frac{1}{2}$ P. M.) Collected many larvæ of *Cos. Drurella*, on hop leaves.

18th. ($3\frac{1}{2}$ —5 P. M.) Found three or four of a *Gelechia*? larvæ, folding up (like *Anthyllidella*) the leaves of *Lathyrus pratensis*; collected eight larvæ of the dogwood-miner.

19th. (6—7 A. M.) Collected larvæ of *Ch. Charophyllellus*, on *Angelica sylvestris*; sent them to T. B.

20th. (5—6 P. M.) Collected a few *Gelechia*? larvæ on *Lathyrus pratensis*, and several larvæ of *Acro. pygmæana*.

21st. J. W. D. brought larvæ of *Gr. omisella* from Shooter's Hill; sent them to P. C. Z.

Received from P. C. Z. pupæ of *Tortrix Euphorbiana*, larvæ of *Anesychia bipunctella*, and of *Gelechia Brizella*? in heads of *Statice armeria*.

(6—7 A. M.) Collected larvæ of *Gr. auroguttella* and a few young larvæ of *Nep. Septembrella*, on *Hypericum*; also *Coleophora* larvæ on *Juncus conglomeratus*.

22nd. (6—7 A. M.) Collected larvæ of *Simaëthis pariana* on hawthorn.

(5—6 P. M.) Collected a few larvæ of the dogwood-miner. W. W. found a number of the fat *Tortrix*? larvæ feeding in the seeds of thistles.

24th. (6—7 P. M.) Collected larvæ of *Ornix Avellanella* and of *Tis. complanella*.

Sept. 24th. Received from T. B. *Nepticula* larvæ in plum leaves (*N. plagicolella*?), and a mining larva (probably the young of some *Tortrix*) in pear leaves.

25th. ($5\frac{1}{2}$ — $7\frac{1}{2}$ A. M.) Collected *Coleophora* larvæ on *Juncus effusus* and *Juncus glaucus*; a *Gelechia*? larva on oak, forming an entire leaf into a vaulted chamber; a larva of *Chimabacche Fagella* on birch, and a larva of *Gel. proximella*? on birch.

(4—5 P. M.) Collected a few larvæ of *Gel. næviferella* on *Atriplex*.

27th. W. W. brought larvæ of *Gel. atriplicella* and *Col. annulatella* on *Chenopodium*.

Received from J. S. green *Nepticula* larvæ on mountain-ash (*N. Oxyacanthella*?).

30th. (5 P. M.) Found one larva of *N. Oxyacanthella* on hawthorn.

Oct. 1st. ($5\frac{3}{4}$ — $6\frac{1}{2}$ A. M.) Collected many larvæ of *N. Oxyacanthella* and three larvæ of *Swam. Pyrella* on hawthorn.

2nd. ($5\frac{3}{4}$ — $7\frac{3}{4}$ A. M.) Collected many larvæ of *N. Oxyacanthella* and *N. viscerella*, one of *N. floslactella* (on nut), and one of *N. aurella*.

(3—5 P. M.) Collected larvæ of *N. Oxyacanthella*, *N. marginicolella*, *N. plagicolella*, and a few larvæ of *Col. paripennella*, on sloe.

3rd. ($5\frac{1}{2}$ — $6\frac{1}{2}$ A. M.) Collected larvæ of *N. viscerella*, three or four *Nep.* off nut, one *N. aurella*, one small oak *Nep.*, several *Ornix Avellanella*, and two of *Gel. triparella*.

Received from J. M., near Ticehurst, some mining larvæ of the *Circæa lutetiana*.

4th. ($6\frac{1}{2}$ —7 A. M.) Collected many larvæ of the *Ornix* of the birch (*O. Betulæ*).

5th. (6—7 A. M.) Collected larvæ of *N. Oxyacanthella* and *N. viscerella*, and two of *N. Oxyacanthella*? and three *N. Malella* on apple.

Received from T. B. larvæ of *N. Tityrella*, of a blotch-mining *Nep.* of the apple, and of *N. microtheriella* on hornbeam.

6th. (6—7 A. M.) Collected larvæ of *N. viscerella*, *marginicolella*, *Oxyacanthella*, and one yellow *Nep.* larva off hawthorn.

Examined mountain-ash leaves received from J. D. Found several *Ornix* larvæ (*Scoticella*), and two or three pupæ; also some *Lithocolletis* larvæ and leaves mined by *Neps*.

7th. ($5\frac{3}{4}$ —7 A. M.) Collected several larvæ of *Ornix Avellanella*, two of *N. floslactella*, and several of *N. microtheriella*. W. W. found three or four of the vaulted-chamber-making larvæ on oak.

- Oct. 8th. (6—6 $\frac{1}{2}$ A. M.) Collected many larvæ of *N. viseerella*, and about twenty of *N. marginiolella*; also three *Gelechia*? larvæ among the elm leaves.
- 9th. (5 $\frac{3}{4}$ —9 A. M.) Collected many larvæ of *N. Cathartieella*; several of *N. Oxyacanthella*? one *Malella* and one *pygmæella*? on apple; several *N. anomalella*, small larvæ of *N. Septembrella*, and some *N. microtheriella* (on nut). Found a small mining larva (not a *Nepticula*) in ash leaves (these quit the leaves before they fall, and hybernate in the buds; probably the young of *Prays Curtisel-lus*). Found larvæ of *Gel. notatella* on willow, which I gave to W. W.; also a larva of *Aeronycta tridens* on rose, and three larvæ of a *Eupithecia*? on yarrow.
- (3—4 $\frac{1}{2}$ P. M.) Collected larvæ of *N. aurella*, *N. plagiolella*, *N. Malella* (about twenty), of *N. Oxyacanthella*? on apple (three or four) of the yellow hawthorn, two; and a few *N. subbimaculella*.
- 10th. (6—6 $\frac{1}{2}$ A. M.) Collected many of the small mining larvæ of the ash.
- 11th. (6—6 $\frac{1}{2}$ A. M.) Collected several larvæ of *N. floslaetella*, two *N. plagiolella*; a few *N. microtheriella* (off hornbeam), and a few *N. aurella*.
- 12th. (6—6 $\frac{1}{2}$ A. M.) Searched for *Nep.* larvæ on alder in vain. Collected several of *N. plagiolella*.
- Received from T. B. a gallery-mine of the sloe, with a defunct *green* larva; also a gallery-mine, which (he said) had contained a *yellow* larva, likewise on sloe.
- W. W. brought an aspen leaf, in which was a pale *Nep.* larva.
- 13th. (6—6 $\frac{3}{4}$ P. M.) Collected many larvæ of *N. floslaetella* and *N. microtheriella* on nut.
- 14th. (6—6 $\frac{1}{2}$ A. M.) Collected *Nep.* larvæ of the hawthorn, green (*Oxyacanthella*), yellowish and yellow.
- 15th. (6—6 $\frac{3}{4}$ A. M.) Collected a few larvæ of *N. Malella*, *N. anomalella*, and three *Ornix* larvæ of the birch.
- 16th. (5 $\frac{3}{4}$ —8 $\frac{1}{2}$ A. M.) Collected three *Nepticula* and several *Lithocolletis* larvæ off willow. (A policeman, who inquired my occupation, looked over the boughs, and picked a willow leaf, on which was a larva of *Gel. notatella*.) Collected several young larvæ of *Col. viminalis* and *gryphipennella*; many *Nep.* larvæ on rose, both *Anomalella*, and the green larvæ, which, when full fed, makes a blotch; when young, a contorted mine. Found a few *Nep.* larvæ and several *Ornix* of the nut. Found on *Hypericum* young

Oct. 16th. ($5\frac{3}{4}$ — $8\frac{1}{2}$ A. M.)—*continued*.

feeding larvæ of *N. Septembrella*. Found no *Nep.* larvæ on the poplar bushes (at the Prestonian fence, near Beckenham).

17th. (6—7 A. M.) Collected larvæ of *Nep. Oxyacanthella* and yellow *Nep.* on hawthorn; many of *N. viscerella*; a few *N. marginicolella*. Found on apple a new *Nep.* larva, greenish, with dark green dorsal line, mining a gallery. Collected about ten, and found one of the same in a neighbouring hawthorn leaf.

18th. (6—7 A. M.) Collected a few larvæ of *N. anomalella*, many of *N. floslactella*, a few *N. microtheriella*, several *Ornix Avellanella*, and five of the *Nep.* larvæ of the apple, with dark green dorsal line.

Received from R. S. three sloe leaves mined in gallery, the larvæ in which were dead.

J. W. D. showed me a curved *Coleophora* case found by R. W. on *Vaccinium*.

19th. (6—7 A. M.) Collected larvæ of *N. Catharticella*, which I gave J. W. D.; larvæ of *N. floslactella* and *microtheriella* on hornbeam, and some larvæ of *N. viscerella*, which I sent to R. S.

Received from T. B. two green *Nep.* larvæ making galleries in sloe leaves; some doubtful-looking blotch-mines of sloe, and some young larvæ of the blotch rose *Nep.*

20th. (6—7 A. M.) Collected yellow *Nep.* larvæ of the hawthorn, and a few larvæ of the new apple *Nep.* (of the 17th).

21st. (6—7 A. M.) Collected larvæ of *Lith. viminctorum* and *Col. viminetella* on *Salix viminalis*.

23rd. (6— $8\frac{1}{2}$ A. M.) Collected many larvæ of *Nep.* and *Litho.* and a few *Col. viminetella* off willow; many of *N. anomalella* and the blotch rose; many *Nep.* of the nut, and a quantity of the *Gelechia?* larvæ of the *Lathyrus pratensis*, which I also found on *Vicia Sepium?*

(4—5 P. M.) Collected a quantity of *N. Catharticella*, many *N. anomalella*, and a few blotch rose *Nep.*

24th. Received from J. A. at Bexhill, *Nep.* larvæ in willow leaves.

(6—7 A. M.) Collected gallery-mining *Nep.* larvæ of the oak two species?

25th. (6—7 A. M.) Collected larvæ of *N. anomalella*, and of the blotch rose *Nep.*

26th. (6—7 A. M.) Collected many larvæ of the blotch rose *Nep.* and of *N. anomalella*.

Oct. 26th. Received from T. B. *Nepticula* larvæ of the hornbeam, and a *Nep.* larva from *Salix alba*, apparently distinct from that of the willow; also larva of *N. plagicolella* in plum leaves, and a new (?) *Nep.* larva in apple leaves.

27th. (6—7 A. M.) Collected larvæ of *N. Catharticella*, and of the blotch rose, both which I sent to T. B.; also many of *N. anomalella*.

28th. (6—7 A. M.) Collected larvæ of *N. subbimaculella*, and of the gallery miners of the oak.

Examined some gallery miners of the oak the previous evening, and appeared to distinguish three sorts; first, with a *dark black* mark behind the head; second, with a *brown* mark behind the head; third, with a *pale* mark behind the head.

29th. (6—6 $\frac{3}{4}$ A. M.) Collected a few larvæ of *N. anomalcella* and of the blotch rose *Nep.*

30th. (6—9 A. M.) Collected a few blotch rose *Nep.* and several *N. Septembrella*; also several *Elachista* larvæ in *Dactylis glomerata*; a young larva of *Gel. rufescens*, and a grass leaf mined as though by a *Lithocolletis*, in which were two larvæ. Collected several *Nep.* larvæ off oak, and a small larva of *Bucc. Ulmella* hanging by a thread. Found many beech leaves on the ground, in which were green patches caused by the presence of a *Nep.* larva near the midrib; hardly *Tityrella (basicolella)*.

30th. (3 $\frac{1}{2}$ —5 P. M.) Collected *Nep.* larvæ off oak, *Tis. complanella* off oak, and *Nep.* larvæ off nut (sent the latter with some *N. Catharticella* to F. G.)

31st. (6 $\frac{1}{4}$ —7 A. M.) Collected a few *Nep.* larvæ off oak.

Nov. 1st. (6 $\frac{1}{2}$ —7 A. M.) Collected a few *Nep.* larvæ off oak.

2nd. T. B. brought cocoons of beech *Neps.* of two colours, *pale* and *dark ochreous*. He had not distinguished the larvæ, but had separated them by the cocoons (the *pale* ones he brought loose in his waistcoat pocket). S. J. W. brought two or three alder leaves mined by *Lith. Stettinensis*, with the pupa in cocoon.

3rd. (6 $\frac{3}{4}$ —7 $\frac{1}{4}$ A. M.) Searched for *Nep.* larvæ on oak; found only one dead one. W. W. found a few.

4th. WENT TO DAWLISH. Went over to Teignmouth in the evening. Saw C. J. R. J. He had larvæ of *Lith. Lantanelle*, pupæ of *L. sylvella*, *Faginella*, *Coryli*, *viminiella*, cones, &c. of *Ornix* of the hawthorn, sloe and nut; and *Gr. Swederella* on oak; mines of *N. marginicolella*, *flos-lactella*, *microtheriella* (a few), *anomalella*, and the blotch rose, *Oxyacanthella* and others on hawthorn; *Salicis* and another distinct larva on willow, with a *paler* head,

Nov. 4th.—*continued.*

greener dorsal vessel, and more blotch-formed mine (of this he gave me two).

5th. (10½ A. M.—2 P. M.) Collected *Nepticula* larvæ of the beech, two *Tityrella*, and one mine of *basicolella*; *Nep.* of the oak (one with pale mark behind the head), *N. aurella*, and three *Nep.* of the *Geum*. These seemed rather paler, and had paler excrement than the bramble feeders. A few mines of *N. viscerella* (*Marginicolella* seems far the commoner here); mines of a *Nep.* on the alder (I was too late for the larva). Collected nine pupæ of *Lithocolletis Stettinensis* and many *alnifoliella* on alder; one *L. Nicellii* on nut, and several of *Col. albitarsella*. Collected heads of *Inula dysenterica* and *Conyza squarrosa*.

(4—5 P. M.) Collected larvæ of *Col. albitarsella*.

6th. (7—8½ A. M.) Observed *Stcl. holostea*, marked by larvæ of *Col. solitariella*, and collected larvæ of *C. albitarsella*.

(2½—5 P. M.) Collected *Ornix* of the birch; observed *L. ulmifoliella* in plenty, and two of the *Scitelli-form* mines on the birch. Collected *Nepticula* larvæ of the beech, oak (pale-headed gallery and *subbimaculella*), willow (*N. Salicis*), and larvæ of *Lith. viminiella*. Searched on *Hypericum* for *Gr. auroguttella* and *N. Septembrella* in vain, and looked on alders for *Lith. Stettinensis* without finding any. Examined seeds of *Lychnis* for *Coleophoræ* without success. Found several *Nep. basicolella* in fallen beech leaves.

7th. (7—8½ A. M.) Collected about twenty cases of *Coleophora argentula* on heads of *Achillea millefolium*, and three geometric larvæ feeding on the seeds of the same plant.

10—11 A. M.) Collected a few larvæ of *Col. albitarsella* and *Grac. tringipennella*.

LEFT DAWLISH.

9th. (6¾—7¼ A. M.) Searched in vain for larvæ of *C. albitarsella* and the *Nepticula* of the *Geum*.

10th. (6¾—7¼ A. M.) Searched in vain for larvæ of *Incurvaria muscalella*.

13th. HEADLEY LANE. (10 A. M.—4 P. M.) Collected heads of *Carlina vulgaris* (containing only Dipterous larvæ), of *Centaurea scabiosa* and *nigra* (the latter sometimes containing a fat whitish larva below the seeds, *Parasia neuropterella*?); and of *Conyza squarrosa* (containing larvæ of *Gel. bifractella*); heads of *Origanum*, with larvæ of *Gelechia subocellea*; heads of *Daucus Carota*, containing larvæ. Found in the seeds of *Hippocrepis comosa*? some “*frass*,” two *Ichneumon* pupæ, and a cocoon, as of a *La-*

Nov. 13th. (10 A. M.—4 P. M.)—*continued*.

verna, attached to the inside of the pod. Observed a flowery appearance produced on *Origanum* by some Dipterous larva. Observed a leaf of *Agrimonia Eupatoria* mined as though by *N. aurella*. Observed marks of the larva that feeds on the hips; of *Nep. anomalella*; and of the blotch rose; of *N. aurella*, and of the *Nep.* of the *Geum*; and of *N. basicolella* on the beech. W. W. found a minute larva feeding close to the midrib of the birch. Observed indications of *Ornix Betulæ* and *Avellanella*, and *Lith. Coryli*. Collected several larvæ of *Lith. Lantanella*. Observed leaves of *Origanum* mined by some Dipterous larva, and one leaf that had apparently been mined by the Lepidopterous larva.

20th. ($6\frac{1}{4}$ — $8\frac{1}{4}$ A. M.) Collected many *Elachista* larvæ in *Dactylis glomerata*, and about a dozen of the *Lithocolleti*-form grass mine.

(4—5 P. M.) Collected a few oak leaves mined by *Tis. complanella*.

27th. ($6\frac{1}{2}$ —9 A. M.) Collected many *Elachista* larvæ in *Dactylis glomerata*, and several of the *Lithocolleti*-form grass mine.

W. W. found two young larvæ of *N. Septembrella*. Found a leaf of *Brachypodium sylvaticum*? in which were the mines (three a-breast) of six larvæ of *E. Megerlella*? four of which (very young) were still in the leaf. Sent this leaf and two of the *Dactylis* leaves mined by *Elachistæ* to R. S.

Dec. 3rd. Visited W. W. He showed me larvæ of *Solenobia inconspicella* collected on an old fence at Kennington (November 27th). He also showed me larvæ of *Endrosis fenestrella* and *Tinca biselliella*, which were visibly different, and some cases of *T. pellionella* on birds' nests.

4th. ($6\frac{3}{4}$ —9 A. M.) W. W. cut into several oak stumps, and one large (*Dasy. sulphurella*?) larva was eliminated. Found a new *Elachista* larva, No. 18, in *Arrhenatherum avnaceum*?, and one small larva of *Col. solitariella*.

10th. W. W. brought some moss of a wall, in which we found one larva of *Gel. affinis*?

11th. ($7\frac{1}{4}$ —9 A. M.) Found several *Elachista* larvæ; some No. 2? in upper part of a slender grass; some of No. 18 in *Arrhenatherum*? and some very like *E. Megerlella* in *Brachypodium sylvaticum*.

18th. ($7\frac{1}{2}$ — $8\frac{3}{4}$ A. M. ther. 30°.) Ground two inches deep with snow.

Dec. 18th. Attacked oak and hawthorn stumps, brought in a cargo of decayed wood, a partial examination of which yielded three living larvæ (besides those we cut in two), probably of *Dasycera sulphurella*, but rather paler, and of a clearer yellowish colour.

25th. ($7\frac{3}{4}$ — $8\frac{1}{2}$ A. M.) Searched for *Elachista* larvæ, but found none.
(3—4 P. M.) Collected heads of *Centaurea nigra*.

IN the preceding pages I have, in order to ensure precision, mentioned several plants by their Latin names; but as many who will make use of this book may not be acquainted with the Latin names of plants, I annex a list of those previously mentioned, together with the English names by which they are generally known.

<i>Achillea millefolium</i>	Common Yarrow.
<i>A</i> — <i>ptarmica</i>	Sneeze-wort.
<i>Ægopodium podagraria</i>	Gout-weed.
<i>Agrimonia eupatoria</i>	Common Agrimony.
<i>Aira cæspitosa</i>	Turfy Hair-Grass.
<i>Anemone nemorosa</i>	Wood Anemone.
<i>Angelica sylvestris</i>	Wild Angelica.
<i>Anthyllis (vulneraria)</i>	Kidney-Vetch; Lady's Finger.
<i>Arctium Lappa</i>	Common Burdock.
<i>Arrhenatherum avenaceum</i> ..	Common Oat-like-grass.
<i>Artemisia campestris</i>	Field Southernwood.
<i>A</i> — <i>vulgaris</i>	Mugwort.
<i>Arundo phragmites</i>	Common Reed.
<i>Atriplex</i>	Orache.
<i>A</i> — <i>portulacoides</i>	Shrubby Orache.
<i>Ballota nigra</i>	Black Fetid Horehound.
<i>Brachypodium sylvaticum</i> . . .	Slender False Brome-grass.
<i>Bromus erectus</i>	Upright Perennial Brome-grass.
<i>Calluna vulgaris</i>	Common Ling.
<i>Caltha (palustris)</i>	Common Marsh-Marigold.
<i>Cardamine pratensis</i>	Common Lady's-Smock.
<i>Carices</i>	Sedge.
<i>Carlina vulgaris</i>	Common Carline-Thistle.
<i>Centaurea nigra</i>	Black Knapweed.
<i>C</i> — <i>scabiosa</i>	Greater Knapweed.
<i>Cerastium vulgatum</i>	Broad-leaved Mouse-ear Chickweed.
<i>Chærophyllum sylvestre</i>	Cow-parsley; Wild Chervil.
<i>C</i> — <i>temulentum</i>	Rough Chervil.
<i>Chenopodium</i>	Goosefoot.
<i>C</i> — <i>bonus Henricus</i>	Perennial Goosefoot.
<i>C</i> — <i>maritimum</i>	Annual Sea-side Goosefoot.
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy.
<i>Cicuta virosa</i>	Water-Hemlock.
<i>Circæa lutetiana</i>	Enchanter's Night Shade.
<i>Cirsium palustre</i>	Marsh Plume-Thistle.
<i>Clematis vitalba</i>	Common Traveller's Joy.
<i>Conium maculatum</i>	Common Hemlock.
<i>Convolvulus arvensis</i>	Small Bindweed.
<i>Conyza squarrosa</i>	Ploughman's Spikenard.

- Cornus (sanguinea)* Wild Cornel-tree (Dogwood).
Coronilla varia Not a British plant; grown sometimes along
with Lucerne.
Cotyledon umbilicus Common Navel-wort.
Dactylis glomerata Rough Cock's-foot Grass.
Daucus carota Wild Carrot.
Echium vulgare Common Viper's Bugloss.
Epilobium alsinifolium Chickweed leaved Willow-Herb.
E—— hirsutum Great hairy Willow-Herb.
Erica Heath.
Euonymus (Europæus) Common Spindle-tree.
Eupatoria Cannabinum Common Hemp-Agrimony.
Festuca Fescue-grass.
Fragaria vesca Wood Strawberry.
Galium aparine Goose-grass. Cleaver's.
Genista tinctoria Dyer's Greenweed.
Geum urbanum Common Avens.
Glechoma hederacea Ground-Ivy.
Helianthemum vulgare Common Sun-Cistus.
Heracleum sphondylium Common Cow-parsnip.
Hesperis matronalis Dame's Violet.
Hieracium Hawkweed.
Hippocrepis (comosa) Tufted Horse-shoe Vetch.
Hippophaë Rhamnoides Sea Buckthorn.
Holcus mollis Creeping Soft grass.
Hypericum perforatum Common perforated St. John's-wort.
Inula dysenterica Common Flea-bane.
Juncus conglomeratus Common Rush.
J—— effusus Soft Rush.
J—— glaucus Hard Rush.
Lathyrus pratensis Meadow Vetching.
Lithospermum officinale Common Cromwell.
Lotus corniculatus Common Bird's-foot Trefoil.
Luzula Hairy Rush.
Lychnis dioica Red Campion.
Matricaria Chamomilla Wild Chamomile.
Medicago maculata Spotted Medick.
Melica uniflora Wood Melic-grass.
Mercurialis perennis Perennial Mercury.
Myrica Gale Sweet Gale.
Œnanthe crocata Hemlock Water-Dropwort.
Ononis spinosa Thorny Rest-Harrow.
Origanum vulgare Wild Marjoram.
Pastinaca Parsnip.
Phellandrium aquaticum Fine-leaved Water-Dropwort.
Pimpinella saxifraga Common Burnet-Saxifrage.
Plantago lanceolata Rib-wort Plantain.
Poa annua Annual Meadow-grass.
P—— trivialis Rough-stalked Meadow-grass.

<i>Polygonum hydropiper</i>	Biting Persicaria.
<i>Potentilla argentea</i>	Hoary Cinque-foil.
<i>P—— fragariastrum</i>	Strawberry-leaved Cinque-foil.
<i>Prunus Padus</i>	Bird Cherry.
<i>Pulmonaria</i>	Lung-wort.
<i>Pyrus torminalis</i>	Wild Service-tree.
<i>Ranunculus</i>	Crowfoot, Buttercup.
<i>Rhamnus catharticus</i>	Common Buckthorn.
<i>R—— frangula</i>	Alder Buckthorn.
<i>Rumex acetoseila</i>	Sheep's Sorrel.
<i>Salicornia herbacea</i>	Annual jointed Glasswort.
<i>Salix alba</i>	Common White Willow.
<i>Scabiosa columbaria</i>	Small Scabious.
<i>S—— succisa</i>	Devil's Bit Scabious.
<i>Sedum acre</i>	Biting Stonecrop.
<i>S—— telephium</i>	Orpine.
<i>Silene inflata</i>	Bladder Campion.
<i>Sison (amomum)</i>	Hedge Stone-wort.
<i>Solanum dulcamara</i>	Woody Nightshade.
<i>Sparganium</i>	Bur Reed.
<i>Stachys sylvatica</i>	Hedge Wound-wort.
<i>Statice armeria</i>	Common Thrift.
<i>Stellaria holostea</i>	Greater Stitchwort.
<i>S—— uliginosa</i>	Bog Stitchwort.
<i>Symphytum officinale</i>	Common Comfrey.
<i>Tanacetum vulgare</i>	Common Tansy.
<i>Teucrium</i>	Germander.
<i>Torilis</i>	Hedge-Parsley.
<i>Trifolium</i>	Trefoil.
<i>Ulex Europæus</i>	Common Furze.
<i>Urtica</i>	Stinging-Nettle.
<i>Vaccinium Myrtillus</i>	Bilberry.
<i>Verbascum pulverulentum</i>	Yellow Hoary Mullein.
<i>Veronica Chamædrys</i>	Germander Speedwell.
<i>Viburnum lantana</i>	Mealy Guelder Rose.
<i>Vicia Sepium</i>	Bush Vetch.

CONCLUSION.

It may not, in conclusion, be useless to remind my youthful reader, that in Entomology, as in other pursuits, no real progress can be made without application and a due regard to the value of time. The Entomological student must learn to apply his whole energies to whatever he has in hand. Whether he be seeking for a new larva, or attempting to pin a *Nepticula* neatly, he must devote his entire attention to the subject; "whatsoever thy hand findeth to do, do it with all thy might." He must also economise his time, taking care that every moment be usefully employed; otherwise, if he is in the habit of dawdling and thinking for half an hour what he shall do before he does anything, he will never get on. The time allotted to each of the human race is short enough—there can be no occasion to squander any of the hours that are given us for a definite purpose—we have each of us our work to do, and now is the time to do it, "for the night cometh when no man can work."

